

United States
Circuit Court of Appeals
For the Ninth Circuit.

WESTINGHOUSE ELECTRIC & MANUFACTURING COMPANY, a Corporation,
Plaintiff in Error,
vs.

SAMSON IRON WORKS, a Corporation,
Defendant in Error.

Transcript of Record.

Upon Writ of Error to the United States District Court
of the Northern District of California,
Second Division.

Filed

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F. D. Monckton,
clerk.

No. 2674

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Circuit Court of Appeals

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[Clerk's Note: When deemed likely to be of an important nature, errors or doubtful matters appearing in the original certified record are printed literally in *italic*; and, likewise, cancelled matter appearing in the original certified record is printed and cancelled herein accordingly. When possible, an omission from the text is indicated by printing in *italic* the two words between which the omission seems to occur. Title heads inserted by the Clerk are enclosed within brackets.]

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*In the District Court of the United States for the
Northern District of California, Second Division.*

No. 15,366.

WESTINGHOUSE ELECTRIC AND MANU-
FACTURING COMPANY (a Corporation),
Plaintiff,

vs.

SAMSON IRON WORKS (a Corporation),
Defendant.

Amended Complaint.

Now comes plaintiff, and by leave of Court first had and obtained files this its amended complaint herein, and for cause of action alleges :

I.

That at all the times herein mentioned the plaintiff, Westinghouse Electric and Manufacturing Company, was and now is a corporation organized and existing under and by virtue of the laws of the State of Pennsylvania, and is a citizen of the State of Pennsylvania.

II.

That at all the times herein mentioned the defendant, Samson Iron Works, was and now is a corporation organized and existing under and by virtue of the laws of the State of California, and is a citizen of the State of California.

III.

That on or about the 20th day of July, 1910, the said plaintiff and the said defendant made and en-

2 *Westinghouse Electric & Manufacturing Co.*

tered into a certain written agreement in the words and figures following, to wit: [1*]

“WESTINGHOUSE ELECTRIC & MANUFACTURING COMPANY.

PROPOSAL.

Pittsburg, Pa., May 25, 1910.

Samson Iron Works,

(Hereinafter called the Purchaser),

Stockton, Cal.

Gentlemen:

Westinghouse Electric & Manufacturing Company (hereinafter called the Company), proposes to furnish the Purchaser, electrical apparatus and appliances as specified below: All apparatus included herein is to be delivered and erected on foundations in the basement of the Spaulding Building, Portland, Oregon.

1—75 K.W., compound wound, direct current, E.T. three-wire generator, 250–125 volts, 265 R.P.M complete with all three wire parts, and field rheostat.

The above generator is to be shipped immediately from San Francisco, Cal., and is to be furnished with a temporary switchboard, pending receipt of the complete switchboard, as specified below.

This generator with its gas engine will be considered as the first of three units which will be installed in the Spaulding Building. This first unit has to be in operation by July 1st, 1910, and it is agreed and understood that payment in the amount of \$1,500.00

*Page-number appearing at foot of page of original certified Record.

will be made on the total contract price, immediately upon installation and acceptance, which payment will not be made later than July 15, 1910.

1—75 K.W. compound wound, direct current, E.T., three wire generator, 250–125 volts, 275 R.P.M., complete with all three wire parts and field rheostat.

1—100 K.W. compound wound, direct current E.T., three wire generator, 250–125 volts, 250 R.P.M., complete with all three wire parts and field rheostat.

For the control of all of the above generators, there will be furnished One (1) four panel type 5-D switchboard, consisting of three (3) generator panels and one (1) load panel, all in accordance with specifications hereto attached. There will also be furnished and installed in conduits to be laid by the Spaulding Building in the Power House floor, all necessary cables in proper lengths and sizes for the complete connections from all generators to their respective switchboard panels, and also from the load panel to the main distribution panel. [2]

All necessary and proper connections will be made from each generator to its respective generator panel with proper regard for multiple operation of all of these units.

DELIVERY.

Delivery of the second 75 K.W. generator and the 100 K. W. generator will be made from our factory in approximately 90 days from date of receipt of order, with full and complete information.

4 *Westinghouse Electric & Manufacturing Co.*

TERMS.

Full payment for the second and third units as mentioned above, will be made immediately upon erection and acceptance, it being further agreed and understood that this payment shall not exceed 45 days from date of Bill of Lading, showing shipment from our factory, East Pittsburg.

If partial payments are made of the second and third units, it is understood that payments will be made on the same basis as above in pro rata amounts of the total contract figure.

PERFORMANCE SPECIFICATIONS.

The operation of all of the above generators will be in accordance with specifications hereto attached.

PRICE.

The price of all of the above apparatus including freight, cartage, erection of generators on foundations supplied by the Spaulding Building, installation and all connections to switchboard, necessary cables for same and delivery of the armatures of the second 75 K.W. and the 100 K.W. to the Samson Iron Works, Stockton, Cal., but not including pressing of the armatures on to the engines shafts, will be Seven Thousand Eight Hundred and fifty 00/100 Dollars (\$7,850.00).

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WESTINGHOUSE ELECTRIC & MANUFACTURING COMPANY.

Pittsburg, Pa.

SWITCHBOARD INQUIRY AND DATA SHEET.

May 25, 1910.

Switchboard for SAMSON IRON WORKS—
Spaulding Building, Portland, Oregon.

1. Name by which plant is known, Spaulding Building. [3]
2. Kind of service, Light and Power (Elevators).
3. Is there any other switchboard in this plant?
No.
4. Finish of Board. Std. Black Marine Slate.
5. Sequence of panels and general date (see also Panel Specification, Form P-1609):

Panel No.	Description of Apparatus or Circuit to be Controlled.	Do Leads Come to Panels From Above or Below?
1.	75 K.W. three wire generator.	
2.	“ “ “	
3.	100 K.W. three wire generator.	Below
4.	Load panel for above.	
6.	Operation of generators. In parallel.	
7.	Are generators separately excited?	
8.	Do exciters operate in parallel with others?	
9.	Must rheostats be proportioned to operate with an automatic voltage (Tirrill) Regulator? Yes.	
10.	Does purchaser insist that large rheostats and meter transformers be supported on rear of panels? No.	

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11. If feeder regulators are used, can they be operated in the same manner as sprocket operated rheostats? If not, indicate relative arrangement of regulators and panels.
12. Finish of meters and trimmings. Standard.
13. Will purchaser require light load accuracy of integrating wattmeters, thus requiring separate series transformers, or can wattmeters be operated on series transformers with other meters?
14. Can any apparatus be operated from meter transformers now installed in plant?
15. Will Westinghouse Automatic Synchronizer be required?
16. Are we to adhere strictly to specifications? If not, how much may we deviate, and may we put in alternate propositions?
17. Basis of proposition.

DATA TO BE FILLED IN WHEN ORDER IS
CLOSED.

18. Board is to be erected 48 inches from the wall.
19. Has full information noted under question 3 been sent? Yes. [4]
20. Complete data regarding all rheostats and starting devices to be provided for—Has this been sent?
21. Send drilling plans, data and all necessary dimensions on foreign apparatus—Has this been done?
22. If apparatus is remote control, sufficient drawings, sketches and information must be sent

to show location of apparatus and include enough data of floors and building details to make designs. Has this been sent?

23. Will purchaser require any drawings for approval or erection? Yes—for erection.

Shall the Company await approval of drawings before starting manufacture? No.

24. If D. C. Generators are to be provided for, are series coils connected on the positive or negative side? Standard.

25. Does any panel ordered require special arrangement of apparatus? No.

26. Are meters to be shipped with panels or are they to be held at factory until needed? With panels.

WESTINGHOUSE ELECTRIC & MANUFACTURING COMPANY.

Pittsburg, Pa.

PERFORMANCE OF SPECIFICATION.

DIRECT CURRENT ENGINE TYPE GENERATOR.

THREE WIRE.

FOR SAMSON IRON WORKS—Spaulding Building—Date May 25, 1910.

NORMAL (FULL LOAD) RATING:

Item.	Specification Number.	Kw.	Volts.	Amperes.	Winding.	Poles.
(a)	5830	75	250 125	300	compound	6
					R. P. M.	Frame
					265	Vert. Split
(b)	5829	75	"	"	Winding	Poles
					compound	Vert. Split
					R. P. M.	Frame
					275	Vert. Split
(c)	5840	100	"	400	Winding	Poles
					compound	Vert. Split
					R. P. M.	Frame
					250	Vert. Split

CONSTRUCTION.

GENERAL DESCRIPTION:—The armature and commutator will be built together upon a ventilated sleeve or spider, and arranged [5] to be pressed on the shaft. The field frame will be provided with screws and liners for adjusting its position. Foundation bolts are not included. Shaft keys are not included where the armature is to be pressed on engine shaft.

FIELD:—The field frame of these generators will

be made of a high grade of iron or steel, sound and free from blow-holes. The poles will be made of laminated steel and so proportioned as to reduce the armature reaction. They will be bolted to the field frame and can be readily removed. For compound wound generators, the series and shunt field coils will be so proportioned as to automatically give the voltage indicated under 'Regulation.' For shunt wound generators, the field coils will be so wound that voltage regulation can be obtained by means of a field rheostat. The coils will be insulated in a suitable manner with material which can be subjected to a temperature of 90 degrees Centigrade without injury.

ARMATURE:—The armature will be of the drum type with open slots for the winding. The coils will be interchangeable and will form a winding such that its circuits will not become unbalanced with the armature displaced as much as $1/32$ inch from its geometrical centre. Before being placed in the slots the coils will be completely insulated in a substantial manner with material which can be subjected to a temperature of 90 degrees Centigrade without injury. The coils will be held in the slots by hard fibre wedges. The core will be built up of high grade laminated sheet steel of good magnetic quality.

COMMUTATOR:—The commutator will be built on an extension of the armature spider. It will be made of copper bars hard drawn to gauge and securely clamped in position. The bars will be thoroughly insulated by mica. The leads from the armature coils will be soldered to the necks of the commutator and each joint will have as great carrying ca-

capacity as the armature conductor.

BRUSHES:—The arms carrying the brushes will be strong and rigid and will be supported by a ring which may be shifted for adjusting the brushes. The brush holders will be of the sliding shunt type. Carbon brushes will be used, and they will be of such size and number as to carry all loads specified.

VENTILATION:—The armature spider, core and windings will be provided with ventilating spaces and the design will be such that the rotation of the armature will set up a forced circulation of air through them. Spaces will be left between the field coils, so that a free circulation of air will be obtained while the machine is in operation, and the ends of the armature coils will be so formed that the air will circulate freely through them.

PERFORMANCE:

COMMUTATION:—The brushes having been once adjusted, there will be practically no sparking or burning of the brushes or blackening of the commutator within the limits of the time loads specified, nor will there be injurious sparking at the momentary overloads.

Item.	Commutation Without Shifting Brushes.		Regulation—Compound Wound Generators Only	
	No Load to.	Momentarily.	No Load Voltage.	Full Load Voltage.
(a)	50% Overload	75% Overload	230	250
(b)	50% Overload	75% Overload	230	250
(c)	50% Overload	75% Overload	230	250

REGULATION:—The regulation is based on a variation of speed in the prime mover of not more than 2 per cent from no load to full load. A less amount of compounding can be obtained by adjust-

ing a shunt to the series winding. The generators covered by these specifications, however, should not be operated with a full load voltage less than 94 per cent of [6] normal full load voltage, or a no load voltage higher than 92 per cent of normal full load voltage.

Efficiency Per Cent. Approx.			
Item.	$\frac{1}{2}$ Load.	$\frac{3}{4}$ Load.	Full Load.
(a)	90.5	91.5	91.5
(b)	90.5	91.5	91.5
(c)	91	91.5	91.2
Temperature Rise Deg. C.			
Commutator.			
Full Load	Followed by	May Rise Above	Momentary Overload
24 Hours.	$1\frac{1}{4}$ Load for 2 Hours.	Other Parts.	Without Injury.
35	50	0	75%
35	50	0	75%
35	50	0	75%

EFFICIENCY.—The efficiencies are to be calculated from the 12R losses in the armature winding and filed coils, brushes and rheostats, core loss and brush friction, these losses being measured separately and based on normal load, speed and voltage.

TEMPERATURE.—Temperatures are to be measured by thermometer, and for room temperatures other than 25 degrees Centigrade corrections according to the Standardization Rules of the American Institute of Electrical Engineers will apply.

METHOD OF TEST:—All tests will be conducted in accordance with the Standardization Rules of the American Institute of Electrical Engineers, and, when feasible, will take place at the Works of Westinghouse Electric & Manufacturing Company. On all points not covered by the Rules of the A. I. E. E., the standard test rules of Westinghouse Electric & Manufacturing Company will be followed. Where

the temperature guarantee is for a period of 24 hours, it is understood that in making tests the run will be only for such length of time as is required to reach a constant temperature. When completed, the generators will be subjected to insulation tests in accordance with the Rules of the A. I. E. E. [7]

WESTINGHOUSE ELECTRIC & MANUFACTURING COMPANY.

Pittsburg, Pa.

PANEL SPECIFICATION.

There will be supplied Two Panels; Type 5-D, Style No. 23033, marked on Data Sheet as Panel Nos. one and two, to be used for the control of 2—75 K.W.D.C. engine type three wire generators.

Each Panel will be made up of three sections, the dimensions of which will be as follows:

Upper Section ft., 20 in. high, 32 in wide and 2 in. thick.

Middle Section ft., 45 in. high, 32 in wide and 2 in. thick.

Lower Section ft., 25 in. high, 32 in. wide and 2 in. thick.

All front edges to have $\frac{1}{2}$ inch bevels.

Upon each of these Panels will be mounted the following apparatus:

Item.	Description.	Style No. or Catalogue No.
1	400 amp. type 'C' two pole automatic circuit-breaker with equalizer contacts.	
2	500 amp. type 'D' ammeters.	
1	Pilot lamp bracket and shade.	
1	Ground detector outfit.	
1	type 'Q' rheostat handle and mounting.	
1	Voltmeter plug receptacle.	
2	300 amp. two pole single throw knife switches.	
2	75 amp. two pole single throw knife switches for balancing coils.	

NOTE.—Ground detector outfit will be furnished on first panel only.

WESTINGHOUSE ELECTRIC & MANUFACTURING COMPANY.

Pittsburg, Pa.

PANEL SPECIFICATION.

There will be supplied One Panel; Type 5-D, Style No. 23034 marked on Data Sheet as Panel No. three, to be used for the control of 1-100 K.W. D.C. engine type three wire generator.

Each Panel will be made up of three sections, the dimensions of which will be as follows:

Upper Section . . . ft., 20 in. high, 32 in. wide and 2 in. thick.

Middle Section . . . ft., 45 in. high, 32 in. wide and 2 in. thick.

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Lower Section . . . ft., 25 in. high, 32 in. wide and 2 in. thick.

Upon each of these Panels will be mounted the following apparatus:

Item.	Description.	Style No. or Catalogue No.
1	400 ampere type 'C' two pole automatic circuit breaker with equalizer contacts.	
2	600 ampere type 'D' ammeters	[8]
1	Pilot lamp, bracket and shade.	
1	Type 'Q' rheostat hand-wheel and mounting.	
1.	Voltmeter plug receptacle.	
2	400 amp. two pole single throw knife switch.	
2	100 amp. two pole single throw knife switches for balancing coils.	

WESTINGHOUSE ELECTRIC & MANUFACTURING COMPANY.

Pittsburg, Pa.

PANEL SPECIFICATION.

There will be supplied One Panel; Type 5-D, Style No. 45099 marked on Data Sheet as Panel No. four, to be used as a load panel.

Each Panel will be made up of three sections, the dimensions of which will be as follows:

Upper Section . . . ft. 20 in high, 24 in wide and 2 in. thick.

Middle Section . . . ft. 45 in. high, 24 in wide and 2 in. thick.

Lower Section ft. 25 in. high 24 in. wide and 2 in. thick.

All front edges to have $\frac{1}{2}$ inch bevels.

Upon each of these Panels will be mounted the following apparatus:

Item.	Description.	Style No. or Catalogue No.
2	2000 ampere illuminated dial type 'E' ammeters	
1	1200 ampere three wire integrating wattmeter.	

WESTINGHOUSE ELECTRIC & MANUFACTURING COMPANY.

Pittsburg, Pa.

PANEL SPECIFICATION.

There will be supplied Panel Type, Style No. marked on Data Sheet as Panel No., to be used for the control of

Each Panel will be made up of sections, the dimensions of which will be as follows:

Upper Section ft., in. high, in. wide and in. thick.

Middle Section ft., in. high, in wide and in. thick.

Lower Section ft., in. high, in. wide and in. thick.

All front edges to have inch bevels.

Upon each of these Panels will be mounted the following apparatus:

Item.	Description.	Style No. or Catalogue No.
-------	--------------	-------------------------------

As extras will be furnished—

Mounted on bracket arms at one end of the board will be—2—300 volt type 'E' illuminated dial voltmeters.

Mounted on bracket arms at the other end of the board will be—2—Type TD 125 automatic voltage regulators.

There will also be furnished all necessary buss bars and wiring on the back of the boards. [9]

1. All apparatus shall be installed by and at the expense of the Purchaser, unless otherwise expressly stipulated.

2. The Company guarantees that the apparatus herein specified will generate or utilize electrical energy to their rated capacities without undue heating and will do their work in a successful manner, provided they are kept in proper condition and operated under normal conditions, and the Purchaser supplies competent supervision for their operation. The Company agrees to correct, at its own expense, any defects of labor or material in said apparatus which may develop under normal and proper use within thirty days after the starting thereof, provided the Purchaser gives the Company immediate written notice of such defects, and the correction of such defects by the Company shall constitute a fulfillment of its obligations to the Purchaser hereunder.

3. In case it is elsewhere herein agreed that the Company shall erect the apparatus herein specified, it is with the distinct understanding that the Company is to furnish the said apparatus and the labor of the erection only, the Purchaser furnishing all foundations and masonry work, including grouting, supports, builders' or joiners' work, access to premises, excavation and making good again. It is also understood that the material and workmanship of such foundations, supports, etc., shall be first-class and adequate for the purpose intended.

4. The property in and title to the apparatus and the right to use the same under the patents of the Company shall not pass from the Company until all payments hereunder (including deferred payments and payments of notes and renewals thereof, if any) shall have been fully made in cash, and the apparatus herein specified shall remain the personal property of the Company, whatever may be the mode of its attachment to the realty or other property, until fully paid for in cash, and the Purchaser agrees to perform all acts which may be necessary to perfect and assure retention of title to the said apparatus to the Company. If default is made in any of the payments in the manner and form and at the time herein specified the Company shall be entitled to the immediate possession of said apparatus and shall be free to enter the premises where such apparatus may be located and remove the same as its property, without prejudice to any further damages which the Company may suffer by reason of the Purchaser's failure

to surrender the apparatus when so required. (A resale of the apparatus herein specified or any part thereof or installation of the same, by the Purchaser, as agent or contractor for another shall not alter the effect and intent of the foregoing provisions, it being understool that the Company's rights may be enforced against the Purchaser's vendee or principal the same as they might have been enforced against the Purchaser if such resale or installation had not been made.)

5. In order to insure the Purchaser against any possible loss or expense by reason of adverse claims under patents based upon the use of any electrical apparatus covered by this proposal, the Company guarantees that the Purchaser shall not be disturbed in the use of the said electrical apparatus by litigation based upon such adverse claims, and to that end the Company will, at its own expense, defend any and all suits or proceedings that may be instituted against the Purchaser for the infringement, or alleged infringement, of any patent or patents by the use of any of the said apparatus, provided such [10] infringement shall consist in the use of said apparatus or parts thereof in the regular course of the Purchaser's business and provided the Purchaser be not in default in payments thereof, and gives to the Company immediate notice in writing of the institution of the suit or proceedings, and permits the Company through its counsel to defend the same, and gives all needed information, and assistance and authority to enable the Company so to do; and thereupon in case

of an award for damages the Company will pay such award, and in case of an injunction against the Purchaser the Company will pay to the Purchaser any loss or damages to the Purchaser's business caused by such injunction.

6. In consideration of the foregoing guarantee, the Purchaser covenants not to violate or infringe any of the United States Letters Patent relating to any of the apparatus herein specified which are controlled by the Company or under which the Company has the right to manufacture or sell any of such apparatus and not to contest the Company's title thereto or rights thereunder or the validity or scope thereof and also agrees that if any trolleys or controllers or parts of trolleys and controllers are covered or are to be covered by this proposal the purchaser will not use or permit others to use such trolleys or controllers, or parts of trolleys or parts of controllers, except when incorporated in and used as parts of such car equipments as the Purchaser had prior to July 1, 1896, or of such additional car equipments as the Purchaser has since purchased or may hereafter purchase from the Company or from a manufacturer duly licensed under the aforementioned patents (the license of the Purchaser to use such trolleys and controllers and parts thereof being expressly qualified as in this paragraph provided.)

7. The Company shall not be held responsible or liable for any loss, damage, detention or delay caused by fire, strike, civil or military authority, or by insurrection or riot, or by any cause beyond its control,

and the receipt of the apparatus by the Purchaser shall constitute acceptance for delivery and a waiver of any and all claims for loss or damage due to delay, but this shall not relieve the Company from the obligations specified in paragraph 2 of this page.

8. The Company will recommend engineers for service in installing and operating the apparatus herein specified if desired by the Purchaser, whose compensation shall not be less than \$7.00 per day, each, and boarding and traveling expenses, all of which shall be paid by the Purchaser; it being understood and agreed that during the term of such service the said engineers shall be the Purchaser's employees, for whose acts the Company shall assume no responsibility.

9. The Purchaser shall provide and maintain, in the name of Westinghouse Electric & Manufacturing Company, sufficient insurance on the apparatus herein specified, against loss or damage by fire during the period between delivery and final payment, to cover the unpaid balance of the purchase price, and, failing so to do, no loss or damage by fire during the aforesaid period shall serve to relieve the Purchaser of the obligations imposed by this agreement.

10. In case the Company, under this proposal, furnishes oil, wire, cable or other material requiring special carriers (such as oil barrels, reels, etc.) then the Purchaser will pay to the Company, under the terms of this agreement, the value [11] of such carriers in addition to the contract price. Upon return to the proper receiving point designated by the Company of such carriers in first-class condition, the Company will credit the Purchaser the full amount

previously charged; provided, however, that invoice or memorandum and necessary shipping documents are promptly forwarded to the Company and return shipment is made within four months from the original date of shipment, charges prepaid.

PRICE: As hereinbefore specified.

TERMS as follows: All payments shall be made in New York or Pittsburgh funds and with reference to the bill of lading in accordance with the following terms; and, in case partial payments are made at different times, pro-rata payments shall be made therefor. If shipment of the apparatus herein specified, or any material part thereof, is delayed from any cause for which the Purchaser is directly or indirectly accountable, the date of completion of the apparatus by the Company shall be regarded as the date of shipment, in determining when payments for said apparatus are to be made, and the Company shall be entitled to receive reasonable compensation for storing the completed apparatus, which shall be held at the Purchaser's risk.

Fifty (50) per cent Sight Draft attached to Bill of Lading.

Forty (40) per cent Thirty (30) days from date of Bill of Lading.

Ten (10) per cent Sixty (60) days from date of Bill of Lading.

As hereinbefore specified.

SHIPMENT:—The apparatus specified above will be shipped as follows:

As herein before specified.

AGREEMENT:—All previous communications between the parties hereto, either verbal or written,

with reference to the subject matter of this proposal, are hereby abrogated, and this proposal duly accepted and approved constitutes the agreement between the parties hereto, and no modification of this agreement shall be binding upon the parties hereto, or either of them, unless such modification shall be in writing, duly accepted by the Purchaser and approved by an executive officer of the Company.

The foregoing proposal must be accepted by the Purchaser within twenty (20) days from its date and must be approved by an executive officer of the Company in order to make it binding upon the Company.

Respectfully yours,

WESTINGHOUSE ELECTRIC & MANUFACTURING COMPANY.

By CARL L. WERNICKE,

Approved: Pittsburg, Pa., July 18, 1910.

WESTINGHOUSE ELECTRIC & MANUFACTURING COMPANY.

By H. D. SHUTE,

Acting Vice-president.

Witness: J. C. DOLAN." [12]

"ACCEPTANCE.

The foregoing proposal is hereby accepted at the prices and upon the terms and conditions named therein.

SAMSON IRON WORKS.

By S. H. HEAD,

Sales Manager.

Witness: CARL L. WERNICKE."

IV.

That in pursuance of the terms and conditions of said agreement and in conformance therewith, plaintiff was by the 1st day of July, 1910, ready, able and willing to furnish, deliver and erect on foundations in the basement of the Spaulding Building, Portland, Oregon, and to have in operation, such 1-75 K. W., compound wound, direct current, E. T. three-wire generator, 250-125 volts, 265 R. P. M., complete with all three-wire parts, and field rheostat, furnished with such temporary switchboard. That by reason of the facts that said Spaulding Building was not in readiness for such installation, and that defendant failed to furnish proper appliances for such operation, plaintiff was prevented from furnishing, delivering and erecting the said electrical apparatus and appliances, and from having the same in operation on or before said 1st day of July, 1910. That as soon as said Spaulding Building was in readiness for such installation and as soon as defendant furnished proper appliances for such operation, plaintiff furnished, delivered and erected said generator, together with a temporary switchboard and necessary cable, on foundations in said basement of said building, and had the same in operation.

V.

That within approximately ninety (90) days from date of receipt of order, plaintiff was ready, able and willing to deliver from plaintiff's said factory, with full and complete [13] information, such 1-75 K. W. compound wound, direct current, E. T., three-wire generator, 250-125 volts, 275 R. P. M., complete with

all three-wire parts and field rheostat, and such 1-100 K. W. compound wound, direct current, E. T., three-wire generator, 250-125 colts, 250 R. P. M., complete with all three-wire parts and field rheostat, together with such four-panel type 5-D switchboard, consisting of three generator panels and one load panel, for the control of all said generators, and also was ready, able and willing to furnish and install in such conduits all such necessary cables in such proper lengths and sizes for such complete connections from all said generators to their respective switchboard panels, and also from the load panel to the main distribution panel, and to make all such necessary and proper connections from each generator to its respective generator panel with proper regard for multiple operation of all said units.

That defendant failed, neglected and refused to pay said sum of fifteen hundred dollars (\$1500.00) immediately upon installation and acceptance of said first unit or on or at any time prior to or since the 15th day of July, 1910, and still so fails, neglects and refuses.

That on or about the 25th day of August, 1910, and before the time specified in the said contract for the delivery of said last-mentioned generators, apparatus and appliances, defendant notified plaintiff that defendant would not accept plaintiff's generators or any other part of plaintiff's machinery, and that said contract herein set forth was void and of no effect. That by reason of said acts of defendant and of defendant's failure to perform the terms and conditions of said agreement, plaintiff has been damaged

in the sum of [14] thirty-one hundred dollars (\$3100.00).

And for a second and further cause of action against said defendant, plaintiff by leave of Court first had and obtained, alleges:

I.

Refers to paragraphs I and II of the first count and cause of action in this amended complaint contained, and asks that they and the allegations therein contained be considered a part of this count and cause of action as if they were expressly set forth herein.

II.

That defendant is indebted to plaintiff for goods sold and delivered and labor and materials furnished by plaintiff to defendant, at the request of defendant, within two years next preceding the commencement of this action, of the reasonable value of thirty-one hundred dollars (\$3100.00), That neither said sum nor any part thereof has been paid, and the same is now wholly unpaid.

WHEREFORE, plaintiff prays judgment against defendant for the sum of thirty-one hundred dollars (\$3100.00), together with interest, and costs of suit.

J. C. CAMPBELL,

DAVID L. LEVY,

Attorneys for Plaintiff. [15]

State of California,

City and County of San Francisco,—ss.

W. W. Briggs, being first duly sworn, deposes and says: That the plaintiff, the Westinghouse Electric and Manufacturing Company, is a corporation and that said affiant is an officer of said corporation, to

wit, the managing agent thereof, and that he makes this affidavit for and on behalf of said plaintiff corporation. That he has read the foregoing amended complaint in the within-entitled action and knows the contents thereof, and that the same is true of his own knowledge, except as to the matters which are therein stated upon information or belief, and that as to those matters he believes it to be true.

W. W. BRIGGS.

Subscribed and sworn to before me this 18th day of December, 1912.

[Seal]

FLORA HALL,
Notary Public, in and for the City and County of
San Francisco, State of California.

[Endorsed]: Filed Dec. 19, 1912. W. B. Maling.
Clerk. By J. A. Schaertzer, Deputy Clerk. [16]

*In the District Court of the United States in and for
the Northern District of California, Second
Division.*

No. 15,366.

WESTINGHOUSE ELECTRIC AND MANU-
FACTURING COMPANY, a Corporation,
Plaintiff,

vs.

SAMSON IRON WORKS, a Corporation,
Defendant.

Answer to Amended Complaint and Counterclaim.

The defendant above named, answers to the Amended Complaint on file in the above-entitled cause, as follows:

I.

Said defendant denies that on or about the 20th day of July, 1910, the defendant made and entered into that certain written agreement set forth in said amended complaint, or into any written agreement whatsoever, or at all, but admits that on the 26th day of May, 1910, it entered into a written agreement with said plaintiff a copy of which is hereto attached, marked Exhibit "A," and hereby referred to and made a part hereof.

II.

Answering unto the fourth article in said amended complaint, this defendant denies that in pursuance of the terms and conditions of said agreement, or in conformance therewith, or otherwise, or at all, the plaintiff was by the 1st day of July, 1910, ready, able, or willing to furnish, or deliver, or erect on foundations in the basement of the Spaulding Building, Portland, Oregon, or to have in operation, such 1-75 K. W., compound wound, direct current, [17] E. T., three-wire generator, 250-125 volts, 265 R. P. M., complete with all three-wire parts, and field rheostat, furnished with such temporary switch-board, or that the said plaintiff was otherwise, or at all, ready, or able, or willing to furnish, or deliver or erect said generator.

Further answering unto said fourth article, said defendant denies that said Spaulding Building was not in readiness for such installation, or that the defendant failed to furnish proper appliances for such operation; and further denies that by reason of the fact that said Spaulding Building was not in readi-

ness for such installation and that defendant failed to furnish proper appliances for such operation, plaintiff was prevented from furnishing, or delivering, or erecting the said electrical apparatus or appliances, or was prevented from having the same in operation on or before said 1st day of July, 1910; defendant further denies that by reason of any matter or thing whatsoever, done, or failed to have been done by said defendant, said plaintiff was prevented from furnishing, or delivering, or erecting the said electrical apparatus or appliances, or from having the same in operation on or before the 1st day of July, 1910. Defendant further denies that as soon as said Spaulding Building was in readiness for such installation, or as soon as defendant furnished proper appliances for such operation, plaintiff furnished, or delivered, or erected said generator, together with a temporary switchboard or necessary cable, on foundations in said basement in said building, or had the same in operation.

III.

Answering unto the fifth article in said amended complaint, and particularly unto the allegations therein that within approximately ninety days from receipt of order, plaintiff was ready, able [18] and willing to deliver from plaintiff's said factory, with full and complete information, such 1-75 K. W. compound wound, direct current, E. T., three-wire generator, 250-125 volts, 275 R. P. M., complete with all three-wire parts and field rheostat, and such 1-100 K. W. compound wound, direct current, E. T., three-wire generator, 250-125 volts, 250 R. P. M., complete

with all three-wire parts and field rheostat, together with such four-panel 5-D switchboard, consisting of three generator panels and one load panel, for the control of all said generators, and also was ready, able and willing to furnish and install in such conduits all such necessary cables in such proper lengths and sizes for such complete connections from all said generators to their respective switchboard panels, and also from the load panel to the main distribution panel, and to make all such necessary and proper connections from each generator to its respective generator panel with proper regard for multiple operation of all said units, this defendant has no information or belief upon the subject sufficient to enable it to answer the same, wherefore, on that ground it denies, generally and specifically, each and all of the allegations therein contained.

Further answering unto said article, and particularly unto the allegation therein that defendant failed, neglected and refused to pay said sum of fifteen Hundred Dollars (\$1500) immediately upon installation and acceptance of said first unit, or on or at any time prior to or since the 15th day of July, 1910, and still so fails, neglects and refuses, said defendant admits that it has refused to pay the said sum of Fifteen hundred (1,500) Dollars,, but denies that said first unit was ever installed or accepted, or that said sum of Fifteen Hundred (1500) Dollars has ever become due. [19]

Further answering unto said article, this defendant denies that by reason of said, or any, acts of the defendant, or by reason of defendant's failure to per-

form the terms or conditions of said agreement, plaintiff has been damaged in the sum of Thirty-one Hundred (3100) Dollars, or in any sum of money whatsoever, or at all.

Answering unto the second cause of action in said amended complaint set forth, this defendant denies that it is indebted to plaintiff for goods sold or delivered, or for labor or materials furnished by plaintiff to defendant, either at the special request of defendant, or otherwise, or that the said defendant is otherwise, or at all, indebted to said plaintiff; and further denies that the said alleged goods so sold or delivered or the labor or materials furnished by the plaintiff to said defendant, were of the reasonable value of Thirty-one Hundred (3100) Dollars, or any sum of money whatsoever.

COUNTERCLAIM.

As a further defense, and by way of counterclaim and set-off to the said causes of action in said amended complaint set forth, this defendant alleges:

I.

That at all of the times hereinafter mentioned the plaintiff Westinghouse Electric and Manufacturing Company was, and now is, a corporation, organized and existing under and by virtue of the laws of the State of Pennsylvania, and is a citizen of the State of Pennsylvania. [20]

II.

That at all of the times hereinafter mentioned the defendant Samson Iron Works was, and now is, a corporation, organized and existing under and by virtue of the laws of the State of California and is a

citizen of the State of California.

III.

That on the 26th day of May, 1910, the said plaintiff and defendant made and entered into a certain written agreement, a copy of which is hereto attached, marked exhibit "A," and hereby referred to and made a part hereof.

That at the time of entering into said contract said plaintiff knew that the same was to be, and the same was then and there between said plaintiff and defendant intended to be an integral part of a contract then about to be entered into between the said defendant Samson Iron Works and one Z. S. Spaulding, of Portland, Oregon, for the installation of said electrical work in said contract mentioned, in the Spaulding Building, in Portland, Oregon, under the terms of which the said Samson Iron Works agreed to guarantee to complete the installation of said electrical work at the times and in the manner in said contract between said plaintiff and defendant set forth.

IV.

That notwithstanding, the plaintiff failed to have the first unit installed as in its said contract set forth by July 1st, 1910, as in its said contract agreed, and further failed and neglected to deliver the second 75 K. W. generator or the 100 K. W. generator in said contract set forth, within ninety days from the date of receipt of order, or at all.

V.

That in consequence of the failure of said plaintiff to keep and perform its said contract as hereinbefore set forth, the said [21] defendant was prevented

from completing the installation of the said electrical apparatus and appliances in the said Spaulding Building in Portland, Oregon, as in its said contract with said Spaulding set forth, and was otherwise put to large cost and expense in attempting to perform said contract, all to its loss and damage in the sum of Seven Thousand Six Hundred and Ninety-three and 34/100 (7,693.34) Dollars.

VI.

That on the 6th day of September, 1910, this defendant notified the said plaintiff that the said Spaulding had by reason of the failure on the part of said plaintiff to carry out its portion of said contract, rescinded his contract with said defendant, Samson Iron Works, and that said defendant would hold said plaintiff liable for all loss and damage accruing therefrom; and thereafter, to wit, on the 12th day of September, 1910, said defendant rescinded its said contract with said plaintiff.

WHEREFORE, said defendant prays that said amended complaint be dismissed, and for its costs herein.

NATHAN H. FRANK,

IRVING H. FRANK,

Attorneys for Defendant. [22]

State of California,
County of San Joaquin,—ss.

J. M. Kroyer, being first duly sworn, deposes and says: That he is an officer of Samson Iron Works, a corporation, defendant in the above-entitled cause, to wit, the President thereof; that he *has the* foregoing answer and counterclaim, and knows the contents

thereof; that the same are true of his own knowledge, except as to the matters which are therein stated upon information and belief, and that as to those matters he believes them to be true.

J. M. KROYER.

Subscribed and sworn to before me this 11th day of February, 1913.

[Seal]

M. H. ORR,

Notary Public in and for the County of San Joaquin,
State of California. [23]

**Exhibit "A" [to Answer to Amended Complaint
and Counterclaim (Agreement Dated May 25,
1910, Between Westinghouse Electric and Man-
ufacturing Company and Samson Iron
Works)].**

EXHIBIT "A."

**"WESTINGHOUSE ELECTRIC & MANUFAC-
TURING COMPANY.**

Proposal.

Pittsburg, Pa., May 25, 1910.

Samson Iron Works

(Hereinafter called the Purchaser),
Stockton, Cal.

Gentlemen:

Westinghouse Electric & Manufacturing Company (hereinafter called the Company), proposes to furnish the Purchaser, electric apparatus and appliances as specified below: All apparatus included herein is to be delivered and erected on foundations in the basement of the Spaulding Building, Portland, Oregon.

34 *Westinghouse Electric & Manufacturing Co.*

1-75 K. W., compound wound, direct current,
E. T., three wire generator, 250-125 volts,
265 R. P. M., complete with all three wire
parts, and field rheostat.

The above generator is to be shipped immediately from San Francisco, Cal., and is to be furnished with a temporary switchboard, pending receipt of the complete switchboard, as specified below.

This generator with its gas engine will be considered as the first of three units which will be installed in the Spaulding Building. This first unit has to be in operation by July 1st, 1910, and it is agreed and understood that payment in the amount of \$1500.00 will be made on the total contract price, immediately upon installation and acceptance, which payment will not be made later than July 15, 1910.

1-75 K. W. compound wound, direct current,
E. T. three wire generator, 250-125 volts,
275 R. P. M., complete with all three wire
parts and field rheostat.

1-100 K. W. compound wound, direct current,
E. T. three wire generator, 250-125 volts,
250 R. P. M., complete with all three wire
parts and field rheostat.

For the control of all of the above generators, there will be furnished one (1) four panel type 5-D switchboard, consisting of three (3) genertor panels and one (1) load panel, all in accordance with specifications hereto attached.

Page 1.

There will also be furnished and installed in conduits to be laid by the Spaulding Building in the

Power House floor, all necessary cables in proper lengths and sizes for the complete connections from all generators to their respective switchboard panels, and also from the load panel to the main distribution panel.

All necessary and proper connections will be made from each generator to its respective generator panel with proper regard for multiple operation of all of these units.

DELIVERY.

Delivery of the second 75 K. W. generator and the 100 K. W. generator [24] will be made from our factory in approximately 90 days from date of receipt of order, with full and complete information.

TERMS.

Full payment for the second and third units as mentioned above, will be made immediately upon erection and acceptance, it being further agreed and understood that this payment shall not exceed 45 days from date of Bill of Lading, showing shipment from our factory, East Pittsburg.

If partial shipments are made of the second and third units, it is understood that payments will be made on the same basis as above in pro rata amounts of the total contract figure.

PERFORMANCE SPECIFICATIONS.

The operation of all of the above generators will be in accordance with specifications hereto attached.

PRICE.

The price of all of the above apparatus including freight, cartage, erection of generators on founda-

tions supplied by the Spaulding Building, installation and all connections to switchboard, necessary cables for same and delivery of the armatures of the second 75 K. W. and the 100 K. W. to the Samson Iron Works, Stockton, Cal., but not including pressing of the armatures on to the engine shafts, will be Seven Thousand Eight hundred and fifty 00/100 (\$7,850.00).

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WESTINGHOUSE ELECTRIC & MANUFACTURING COMPANY.

Pittsburg, Pa.

PERFORMANCE SPECIFICATION.

Direct Current Engine Type Generator Three Wire.
For SAMSON IRON WORKS—Spaulding Building—Date May 25, 1910.

No.

NORMAL (Full Load) Rating:

		Specification Num-							
Item.	ber.	Kw.	Volts.	Amperes.	Winding.	Poles.	R. P. M.	Frame.	
(a)	5830	75	250- 125	300	Compound	6	265	Vert. Split	
(b)	5829	75	"	"	"	6	275	"	"
(c)	5840	100	"	400	"	6	250	"	"

[25]

CONSTRUCTION.

General Description:—The armature and commutator will be built together upon a ventilated sleeve or spider and arranged to be pressed on the shaft. The field frame will be provided with screws and liners for adjusting its position. Foundation bolts are not included. Shaft keys are not included where the armature is to be pressed on engine shaft.

FIELD:—The field frame of these generators will be made of a high grade of iron or steel, sound and free from blow-holes. The poles will be made of laminated steel and so proportioned as to reduce the armature reaction. They will be bolted to the field frame and can be readily removed. For compound wound generators, the series and shunt field coils will be so proportioned as to automatically give the voltage indicated under “Regulation.” For shunt wound generators, the field coils will be so wound that voltage regulation can be obtained by means of a field rheostat. The coils will be insulated in a suitable manner with material which can be subjected to a temperature of 90 degrees Centigrade without injury.

ARMATURE:—The armature will be of the drum type with open slots for the winding. The coils will be interchangeable and will form a winding such that its circuits will not become unbalanced with the armature displaced as much as $1/32$ inch from its geometrical centre. Before being placed in the slots the coils will be completely insulated in a substantial manner with material which can be subjected to a temperature of 90 degrees Centigrade without injury. The coils will be held in the slots by hard fibre wedges. The core will be built up of high grade laminated sheet steel of good magnetic quality.

COMMUTATOR:—The commutator will be built on an extension of the armature spider. It will be made of copper bars hard drawn to gauge and securely clamped in position. The bars will be thoroughly insulated by mica. The leads from the arma-

ture coils will be soldered to the necks of the commutator and each joint will have as great carrying capacity as the armature conductor.

BRUSHES:—The arms carrying the brushes will be strong and rigid and will be supported by a ring which may be shifted for adjusting the brushes. The brush holders will be of the sliding shunt type. Carbon brushes will be used, and they will be of such size and number as to carry all loads specified.

VENTILATION:—The armature spider, core and windings will be provided with ventilating spaces and the design will be such that the rotation of the armature will set up a forced circulation of air through them. Spaces will be left between the field coils, so that a free circulation of air will be obtained while the machine is in operation, and the ends of the armature coils will be so formed that the air will circulate freely through them.

Page 3.

PERFORMANCE.

COMMUTATION:—The brushes having been once adjusted, there will be practically no sparking or burning of the brushes or blackening of the commutator within the limits of the time loads specified, nor will there be injurious sparking at the momentary overloads. [26]

REGULATION:—The regulation is based on a variation of speed in the prime mover of not more than 2 per cent. from no load to full load. A less amount of compounding can be obtained by adjusting a shunt to the series winding. The generators

covered by these specifications, however, should not be operated with a full load voltage less than 94 per cent of normal full load voltage, or a no load voltage higher than 92 per cent of normal full load voltage.

Item.	Commutation Without Shifting Brushes.		Regulation—Compound Wound Generators Only.	
	No Load to.	Momentarily.	No Load Voltage.	Full Load Voltage.
(a)	50% Overload	75% Overload	230	250
(b)	50% Overload	75% Overload	230	250
(c)	50% Overload	75% Overload	230	250

EFFICIENCY:—The efficiencies are to be calculated from the 12 R losses in the armature winding and field coils, brushes and rheostats, core loss and brush friction, these losses being measured separately and based on normal rated load, speed and voltage.

TEMPERATURE:—Temperatures are to be measured by thermometer, and for room temperatures other than 25 degrees Centigrade correction according to the Standardization Rules of the American Institute of Electrical Engineers will apply.

Item.	Efficiency Per Cent. Approx.			
	$\frac{1}{2}$ Load.	$\frac{3}{4}$ Load.	Full Load.	$1\frac{1}{4}$ Load.
(a)	90.5	91.5	91.5	90.25
(b)	90.5	91.5	91.5	90.25
(c)	91	91.5	91.2	90.

Temperature Rise Deg. C.

Full Load		Commutator May Rise Above Other		Momentary Over-load Without	
24 Hours.	Followed by	Parts.		Injury.	
35	$1\frac{1}{4}$ Load for 2 Hours.	50		75%	
35		0		75%	
35		0		75%	

METHOD OF TEST:—All tests will be conducted in accordance with the Standardization Rules of the American Institute of Electrical Engineers, and, when feasible, will take place at the Works of Westinghouse Electric & Manufacturing Company. On

all points not covered by the Rules of the A. I. E. E., the standard test rules of [27] Westinghouse Electric & Manufacturing Company will be followed. Where the temperature guarantee is for a period of 24 hours, it is understood that in making tests the run will be only for such length of time as is required to reach a constant temperature. When completed, the generators will be subjected to insulation tests in accordance with the rules of the A. I. E. E.

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WESTINGHOUSE ELECTRIC & MANUFACTURING COMPANY.

Pittsburg, Pa.

SWITCHBOARD INQUIRY AND DATA SHEET.

Three copies of this sheet, completely filled out, must accompany every switchboard contract or order; one copy will be attached to Purchaser's copy of contract.

May 25, 1910.

Switchboard for SAMSON IRON WORKS—
Spaulding Building Portland, Oregon.

1. Name by which plant is known—Spaulding Building.
2. Kind of service—Light and Power (Elevators).
(State whether lighting, power, etc., and if A. C. give per cent power factor, or failing this, the character and proportionate division of the load.)
3. Is there any other switchboard in this plant?
No.

(If new switchboard must harmonize in design or appearance with any other switchboard, give on a separate sheet fullest description of same with all necessary center lines and dimensions, location of bus bars and other pertinent information. A sketch may be unnecessary. Give direction of rotation of rheostat hand wheels necessary to raise the voltage, finish of instruments, description of marble or slate panels, including bevels, with data or samples if it is necessary that panels should match closely.)

4. Finish of Board } Standard—Black Marine
 Marble, Shade
 Std. Black Marine...Slate
 (Polished or any special finish require addition to standard price.)

5. Sequence of panels and general data (see also Panel Specification, Form P-1609):
 (Panels to be numbered from left to right facing switchboard.)

Panel No.	Description of Apparatus or Circuit to be Controlled.	Do Leads Come to Panels From Above or Below?
1	75 K. W. three wire generator	
2	" "	
3	100 K. W. three wire generator	Below
4	Load panel for above.	
.....		
	Ground Leads	
.....		

[28]

For generators give size of each main, equalizer and field lead, marking same M., E. and F., respectively.

For transformers give size of each high tension and low tension lead, marking same H. T. and L. T., respectively.

For feeders give size of each trolley feeder for railway work and size of ground leads.

For non-grounded circuits give size of each outgoing lead.

If provision for Westinghouse Standard cables will be acceptable, mark simply "STD."

- (x) Only required where series transformers are located on cables, or cable bushings are to be provided for.

Page 5.

6. Operation of generators—In parallel.
(State if "in parallel." If not, explain operation. If all panels and connections are not strictly standard, describe connections required and send rough diagram.)
7. Are generators separately excited?...
8. Do exciters operate in parallel with others?...
9. Must rheostats be proportioned to operate with an automatic voltage (Tirril) regulator? Yes.
(See forms P-1045 and P-1046.)
10. Does purchaser insist that large rheostats and meter transformers be supported on rear of panels? No.
(The Company's standard practice is to locate large rheostats and meter transformers apart from switchboard whenever necessary to make rear of panels accessible. Outline drawings will be sent to purchaser so that proper provision can be made. They will

not be mounted on rear of panels in such cases unless specially provided for.)

11. If feeder regulators are used, can they be operated in the same manner as sprocket operated rheostats? If not, indicate relative arrangement of regulators and panels.
12. Finish of meters and trimmings—Standard.
(Special finish requires addition to standard price.)
13. Will purchaser require light load accuracy of integrating wattmeters, thus requiring separate series transformers, or can wattmeters be operated on series transformers with other meters?
14. Can any apparatus be operated from meter transformers now installed in plant? . . .
15. Will Westinghouse Automatic Synchronizer be required? . . .
16. Are we to adhere strictly to specifications? If not, how much may we deviate, and may we put in alternate propositions? . . .
17. Basis of proposition. . . .

(In making inquiry for quotation state maximum economy, meaning cheaper and fewer instruments, or best and most convenient layout, meaning highest grade of apparatus and as much apparatus as could perform useful functions, and often more liberal spacing.) [29]

DATA TO BE FILLED IN WHEN ORDER IS
CLOSED.

18. Board is to be erected 48 inches from the wall.
19. Has full information noted under question 3 been sent? Yes.
20. Complete data regarding all rheostats and starting devices to be provided for. Has this been sent? . . .

(If these are not Westinghouse devices, send all necessary templates, drawings and dimensions with manufacturers' names and identifying data. If new face plate is wanted for resistance, give number of contracts, capacity in amperes, resistance, dimensions, name of manufacturer, and any other pertinent information. If rheostats are Westinghouse, identify same. For remote control rheostats fill out leaflet No. 2714 and attach hereto.)

21. Send drilling plans, data and all necessary dimensions on foreign apparatus. Has this been done? . . .
22. If apparatus is remote control, sufficient drawings, sketches and information must be sent to show location of apparatus and include enough data of floors and building details to make designs. Has this been sent? . . .
23. Will purchaser require any drawings for approval or erection? Yes—for erection.
Shall the Company await approval of drawings before starting manufacture? No.
24. If D.C. Generators are to be provided for, are

series coils connected on the positive or negative side? Standard.

25. Does one panel ordered require special arrangement of apparatus? No.

(If special arrangement is desired send sketch.)

26. Are meters to be shipped with panels or are they to be held at factory until needed? With panels.

(If meters are received at destination some time before they are needed they may be damaged by rough handling or by condensation on the delicate mechanism causing corrosion. This is likely to occur if Purchaser has no adequate place to store them where temperature is sufficiently high and constant.)

Page 6.

Form P-1609.

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WESTINGHOUSE ELECTRIC & MANUFACTURING COMPANY.

Pittsburg, Pa.

PANEL SPECIFICATION.

A specification must be filled out for each panel except where rating and amount of apparatus is identical with other panels.

There will be supplied Two Panels; Type 5-D, Style No. 23,033 marked on Data Sheet as Panels Nos. one and two, to be used for the control of 2-75 K.W. D.C. engine type three-wire generators. [30]

(Give capacity in kilowatts or horse-power of the circuit or apparatus controlled, with overload guarantee, also voltage, frequency and power factor (if known), together with name of maker of any apparatus controlled, and data for complete identification.)

Each Panel will be made up of three sections, the dimensions of which will be as follows:

Upper Section ft., 20 in. high, 32 in. wide and 2 in thick.

Middle Section ft., 45 in. high, 32 in. wide and 2 in thick.

Lower Section ft., 25 in. high, 32 in. wide and 2 in thick.

All front edges to have $\frac{1}{2}$ inch bevels.

(See Price List No. 12528 for standard dimensions and bevels.)

Upon each of these panels will be mounted the following apparatus:

(Give complete identification of all apparatus, specifying capacity in amperes, volts and Type No., Style No., or Catalogue No. where these are available. Observe that the factory will require outline drawing and drilling template of all apparatus not furnished by Westinghouse Electric & Mfg. Co.)

Item.	Description.	Style No. or Catalogue No.
1	400 amp. type "C" two pole automatic circuit-breaker with equalizer contacts.	
2	500 amp. type "D" ammeters.	
1	Pilot lamp bracket and shade.	

- 1 Ground detector outfit.
- 1 Type "Q" rheostat handle and mounting.
- 1 Voltmeter plug receptacle.
- 2 300 amp. two pole single throw knife switches.
- 2 75 amp. two pole single throw knife switches for balancing coils.

NOTE:—Ground detector outfit will be furnished on first panel only.

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Pittsburg, Pa.

PANEL SPECIFICATION.

A specification must be filled out for each panel except where rating and amount of apparatus is identical with other panels.

There will be supplied One Panel; Type 5-D, Style No. 23034 marked on Data Sheet as Panel No. three, to be used for the control of 1-100 K.W. D.C. engine type three-wire generator.

(Give capacity in kilowatts or horse-power of the circuit or apparatus controlled, with overload guarantee, also voltage, frequency and power factor (if known) together with name of maker of any apparatus controlled and data for complete identification.)

48 *Westinghouse Electric & Manufacturing Co.*

Each Panel will be made up of three sections, the dimensions of which will be as follows:

Upper Section ft., 20 in. high, 32 in. wide and 2 in thick.

Middle Section ft., 45 in. high, 32 in. wide and 2 in thick.

Lower Section ft., 25 in high, 32 in. wide and 2 in thick.

All front edges to have $\frac{1}{2}$ inch bevels.

(See Price List No. 12528 for standard dimensions and bevels.)

Upon each of these panels will be mounted the following apparatus:

(Give complete identification of all apparatus, specifying capacity in amperes, volts and Type No., Style No., or Catalogue No. where these are available. Observe that the factory will require outline drawing and drilling template of all apparatus not furnished by Westinghouse Electric & Mfg. Co.)

Item.	Description.	Style No. or Catalogue No.
1	400 ampere type "C" two pole automatic circuit-breaker with equalizer contacts.	
2	600 ampere type "D" ammeters.	
1	Pilot lamp, bracket and shade.	
1.	Type "Q" rheostat hand-wheel and mounting.	
1	Voltmeter plug receptacle.	
2	400 amp. two pole single throw knife switch.	
2	100 amp. two pole single throw knife switches for balancing coils.	

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PANEL SPECIFICATION.

A specification must be filled out for each panel except where rating and amount of apparatus is identical with other panels.

There will be supplied One Panel; Type 5-D, Style No. 45099 marked on Data Sheet as Panel No. four, to be used as a load panel.

(Give capacity in kilowatts or horse-power of the circuit or apparatus controlled, with overload guarantee, also voltage, frequency and power factor (if known), together with name of maker of any apparatus controlled and data for complete identification.)

Each Panel will be made up of three sections, the dimensions of which will be as follows:

Upper Section ft., 20 in. high, 24 in. wide and 2 in thick.

Middle Section ft., 45 in. high, 24 in. wide and 2 in thick.

Lower Section ft., 25 in. high, 24 in. wide and 2 in thick.

All front edges to have $\frac{1}{2}$ inch bevels.

(See Price List No. 12528 for standard dimensions and bevels.) [32]

Upon each of these panels will be mounted the following apparatus:

(Give complete identification of all apparatus, specifying capacity in amperes, volts and Type No., Style No. or Catalogue No. where these are available. Observe that the factory will require outline drawing and drilling template of all apparatus not furnished by Westinghouse Electric Mfg. Co.)

Item.	Description.	Style No. or Catalogue No.
2	2000 ampere illuminated dial type "E" ammeters.	
1	1200 ampere three-wire integrating wattmeter.	

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Pittsburg, Pa.

PANEL SPECIFICATION.

A specification must be filled out for each panel except where rating and amount of apparatus is identical with other panels.

There will be supplied Panel Type Style No. marked on Data Sheet as Panel No., to be used for the control of

(Give capacity in kilowatts or horse-power of the circuit or apparatus controlled, with overload guarantee, also voltage, frequency and power factor (if known), together with name of maker of any apparatus controlled and data for complete identification.)

Each Panel will be made up of sections, the dimensions of which will be as follows:

Upper Section ft. . . . in. high, in. wide
and in. thick.

Middle Section ft. . . . in. high, in. wide
and in. thick.

Lower Section ft. . . . in. high, in. wide
and in. thick.

All front edges to have inch bevels.

(See Price List No. 12528 for standard dimensions and bevels.)

Upon each of these panels will be mounted the following apparatus:

(Give complete identification of all apparatus, specifying capacity in amperes, volts and Type No., Style No., or Catalogue No. where these are available. Observe that the factory will require outline drawing and drilling template of all apparatus not furnished by Westinghouse Electric & Mfg. Co.) [33]

Item.	Description.	Style No. or Catalogue No.
	As extras will be furnished—	
	Mounted on bracket arms at one end of board will be—	
	2-300 volt type “E” illuminated dial voltmeters—	
	Mounted on bracket arms at the other end of the board will be—	
	2 type TD 125 automatic voltage regulators—	
	There will also be furnished all necessary buss bars and wiring on the back of the boards.	

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1. All apparatus shall be installed by and at the expense of the Purchaser, unless otherwise expressly stipulated.

2. The Company guarantees that the apparatus herein specified will generate or utilize electrical energy to their rated capacities without undue heating and will do their work in a successful manner, provided they are kept in proper condition and operated under normal conditions, and the Purchaser supplies competent supervision for their operation. The Company agrees to correct, at its own expense, any defects of labor or material in said apparatus which may develop under normal and proper use within thirty days after the starting thereof, provided the Purchaser gives the Company immediate written notice of such defects, and the correction of such defects by the Company shall constitute a fulfillment of its obligations to the Purchaser hereunder.

3. In case it is elsewhere herein agreed that the Company shall erect the apparatus herein specified, it is with the distinct understanding that the Company is to furnish the said apparatus and the labor of the erection only, the Purchaser furnishing all foundations and masonry work, including grouting, supports, builders' or joiners' work, access to premises, excavation and making good again. It is also understood that the material and workmanship of such foundations, supports, etc., shall be first-class and adequate for the purpose intended.

4. The property in and title to the apparatus and the right to use the same under the pat-

ents of the Company shall not pass from the Company until all payments hereunder (including deferred payments and payments of notes and renewals thereof, if any) shall have been fully made in cash, and the apparatus herein specified shall remain the personal property of the Company whatever may be the mode of its attachment to the realty or other property, until fully paid for in cash, and the Purchaser agrees to perform all acts which may be necessary to perfect and assure retention of title to the said apparatus in the Company. If default is made in any of the payments in the manner and form and at the time herein specified, [34] the Company shall be entitled to the immediate possession of said apparatus and shall be free to enter the premises where such apparatus may be located and remove the same as its property, without prejudice to any further damages which the Company may suffer by reason of the purchaser's refusal or failure to surrender the apparatus when so required. (A resale of the apparatus herein specified or any part thereof or installation of the same, by the Purchaser, as agent or contractor for another shall not alter the effect and intent of the foregoing provisions, it being understood that the Company's rights may be enforced against the Purchaser's vendee or principal the same as they might have been enforced against the Purchaser if such resale or installation had not been made.)

5. In order to insure the Purchaser against any possible loss or expense by reason of adverse claims under patents based upon the use of any of the elec-

trical apparatus covered by this proposal, the Company guarantees that the Purchaser shall not be disturbed in the use of the said electrical apparatus by litigation based upon such adverse claims, and to that end the Company will, at its own expense, defend any and all suits or proceedings that may be instituted against the Purchaser for the infringement, or alleged infringement, of any patent or patents by the use of any of the said apparatus, provided such infringement shall consist in the use of said apparatus or parts thereof in the regular course of the Purchaser's business and provided the Purchaser be not in default in payments thereof, and gives to the Company immediate notice in writing of the institution of the suit or proceedings, and permits the Company through its counsel to defend the same, and gives all needed information, assistance and authority to enable the Company so to do; and thereupon in case of an award for damages the Company will pay such award, and in case of an injunction against the Purchaser the Company will pay to the Purchaser any loss or damages to the Purchaser's business caused by such injunction.

6. In consideration of the foregoing guarantee, the Purchaser covenants not to violate or infringe any of the United States Letters Patent relating to any of the apparatus herein specified which are controlled by the Company or under which the Company has the right to manufacture or sell any of such apparatus and not to contest the Company's title thereto or rights thereunder or the validity or scope thereof and also agrees that if any trolleys or controllers or parts of trolleys and controllers are cov-

ered or are to be covered by this proposal, the Purchaser will not use or permit others to use such trolleys or controllers, or parts of trolleys or parts of controllers, except when incorporated in and used as parts of such car equipments as the Purchaser had prior to July, 1, 1896, or of such additional car equipments as the Purchaser has since purchased or may hereafter purchase from the Company or from a manufacturer, duly licensed under the aforementioned patents (the license of the Purchaser to use such trolleys and controllers and parts thereof being expressly qualified as in this paragraph provided).

7. The Company shall not be held responsible or liable for any loss, damage, detention or delay caused by fire, strike, civil or military authority, or by insurrection or riot, or by any cause beyond its control, and the receipt of the apparatus by the Purchaser shall constitute acceptance for delivery and a waiver of any and all claims for loss or damage due to delay, but this shall not relieve the Company from the obligations specified in paragraph 2 of this page.

8. The Company will recommend engineers for service in installing and operating the apparatus herein specified if desired by the Purchaser, whose compensation shall not be less than \$7.00 per day, [35] each, and boarding and traveling expenses, all of which shall be paid by the Purchaser; it being understood and agreed that during the term of such service the said engineers shall be the Purchaser's employes, for whose acts the Company shall assume no responsibility.

9. The Purchaser shall provide and maintain, in the name of Westinghouse Electric & Manufacturing Company, sufficient insurance on the apparatus herein specified, against loss or damage by fire during the period between delivery and final payment, to cover the unpaid balance of the purchase price, and, failing so to do, no loss or damage by fire during the aforesaid period shall serve to relieve the Purchaser of any of the obligations imposed by this agreement.

10. In case the Company, under this proposal, furnishes oil, wire, cable or other material requiring special carriers (such as oil barrels, reels, etc.) then the Purchaser will pay to the Company, under the terms of this agreement, the value of such carriers in addition to the contract price. Upon return to the proper receiving point designated by the Company of such carriers in first-class condition, the Company will credit the Purchaser the full amount previously charged; provided, however, that invoice or memorandum and necessary shipping documents are promptly forwarded to the Company and return shipment is made within four months from the original date of shipment, charges prepaid.

PRICE:—As herein before specified.

TERMS as follows:—All payments shall be made in New York or Pittsburg funds and with reference to the bill of lading, in accordance with the following terms; and, in case partial shipments are made at different times, pro rata payments shall be made therefor. If shipment of the apparatus herein specified, or any material part thereof, is delayed from

any cause for which the Purchaser is directly or indirectly accountable, the date of completion of the apparatus by the Company shall be regarded as the date of shipment, in determining when payments for said apparatus are to be made, and the Company shall be entitled to receive reasonable compensation for storing the completed apparatus, which shall be held at the Purchaser's risk.

Fifty (50) per cent Sight Draft attached to Bill of Lading.

Forty (40) per cent Thirty (30) days from date of Bill of Lading.

Ten (10) per cent Sixty (60) days from date of Bill of Lading.

As herein before specified.

SHIPMENT:—The apparatus specified above will be shipped as follows:

As herein before specified.

AGREEMENT:—All previous communications between the parties hereto, either verbal or written, with reference to the subject matter of this proposal, are hereby abrogated, and this proposal, duly accepted and approved, constitutes the agreement between the parties hereto, and no modification of this agreement shall be binding upon the parties hereto, or either of them, unless such modification shall be in writing, duly accepted by the Purchaser and approved by an executive officer of the Company. [36]

The foregoing proposal must be accepted by the Purchaser within twenty (20) days from its date and must be approved by an executive officer of the

Company in order to make it binding upon the Company.

Respectfully yours,

WESTINGHOUSE ELECTRIC & MANUFACTURING COMPANY.

By CARL L. WERNICKE.

Approved: Pittsburg, Pa., July 18, 1910.

WESTINGHOUSE ELECTRIC & MANUFACTURING COMPANY.

By H. D. SHUTE,
Acting Vice-president.

Witness J. C. DOLAN.

“ACCEPTANCE.

The foregoing proposal is hereby accepted at the prices and upon the terms and conditions named therein.

Dated May 26, 1910.

SAMSON IRON WORKS,

By S. H. HEAD,
Sales Manager.

Witness: CARL L. WERNICKE.”

Receipt of a copy of the within Answer to Amended Complaint and Counter Claim is hereby admitted this 14th day of February, 1913.

J. C. CAMPBELL,
Attorneys for Plaintiff.

[Endorsed]: Filed Feb. 14, 1913. W. B. Maling,
Clerk. By J. A. Schaertzer, Deputy Clerk. [37]

*In the District Court of the United States, in and for
the Northern District of California, Division
Two.*

No. 15,366.

WESTINGHOUSE ELECTRIC AND MANU-
FACTURING COMPANY, a Corporation,
Plaintiff,

vs.

SAMSON IRON WORKS, a Corporation,
Defendant.

Amendment to Answer and Counterclaim.

Samson Iron Works, defendant above named, by leave of Court first obtained, files its amendment to the counterclaim in the above-entitled cause as follows:

By striking out the prayer in said counterclaim on page 4 thereof, and inserting in lieu thereof, the following:

WHEREFORE, the said defendant prays that said complaint be dismissed, and that judgment be rendered in favor of this defendant and against plaintiff in the sum of Seven Thousand Six Hundred and Ninety-three and $34/100$ (7,693.34) Dollars, together with its interest from the 6th day of September, 1910, and costs, and for such other and further relief as the Court may deem proper in the premises.

NATHAN H. FRANK,
IRVING H. FRANK,
Attorneys for Defendant. [38]

State of California,

City and County of San Francisco,—ss.

J. M. Kroyer, being duly sworn, deposes and says: That he is an officer of Samson Iron Works, a corporation, defendant in the above-entitled cause, to wit, the President thereof; that he has read the foregoing amendment to the counterclaim, and knows the contents thereof, and that the same is true of his own knowledge, except as to the matters which are therein stated upon information and belief, and that as to those matters he believes it to be true.

J. M. KROYER.

Subscribed and sworn to before me this 12 day of June, 1914.

[Seal]

C. W. CALBREATH,

Deputy Clerk U. S. District Court Northern District of California.

Receipt of a copy of the within Amendment to Counterclaim is hereby admitted this 12th day of June, 1914.

J. C. CAMPBELL,

D. L. LEVY,

WALTER SHELTON,

Attorneys for Plaintiff.

[Endorsed]: Filed Jun. 12, 1914. W. B. Maling, Clerk. By J. A. Schaertzer, Deputy Clerk. [39]

*In the Circuit Court of the United States, for the
Ninth Circuit, Northern District of California.*

No. 15,366.

WESTINGHOUSE ELECTRIC & MANUFACTURING COMPANY, a Corporation,
Plaintiff,

vs.

SAMSON IRON WORKS, a Corporation,
Defendant.

Cross-complaint.

The defendant above named, Samson Iron Works, by way of Cross-complaint to the Complaint of the plaintiff in the above-entitled cause now on file herein, alleges as follows:

I.

That at all of the times hereinafter mentioned the said plaintiff, Westinghouse Electric & Manufacturing Company was, and now is, a corporation, organized and existing under and by virtue of the laws of the State of Pennsylvania, and is a citizen of the State of Pennsylvania.

II.

That at all of the times hereinafter mentioned the said defendant, Samson Iron Works, was, and now is, a corporation, organized and existing under and by virtue of the laws of the State of California, and is a citizen of the State of California.

III.

That on the 26th day of May, 1910, the said plaintiff and defendant made and entered into a certain

written agreement, a copy of which is hereto attached, marked exhibit "A," and hereby referred to and made a part hereof.

That at the time of entering into said contract said plaintiff [40] knew that the same was to be, and the same was then and there between said plaintiff and defendant intended to be, an integral part of a contract then about to be entered into between the said defendant Samson Iron Works and one Z. S. Spaulding, of Portland, Oregon, for the installation of said electrical work in said contract mentioned in the Spaulding Building, in Portland, Oregon, under the terms of which the said Samson Iron Works agreed to guarantee to complete the installation of said electrical work at the times and in the manner in said contract between said plaintiff and defendant set forth.

IV.

That notwithstanding the said plaintiff failed to have the first unit installed as in its said contract set forth by July 1st, 1910, as in its said contract agreed, and further failed and neglected to deliver the second K.W. Generator or the 100 K.W. Generator in said contract set forth, within ninety days from the date of receipt of order, or at all.

V.

That in consequence of the failure of said plaintiff to keep and perform its said contract as hereinbefore set forth, the said defendant was prevented from completing the installation of the said electrical apparatus and appliances in the said Spaulding Building in Portland, Oregon, as in its said contract with

said Spaulding set forth, and was otherwise put to large cost and expense in attempting to perform said contract, all to its loss and damage in the sum of Seven Thousand Six Hundred and Ninety-three and 34/100 (7,693.34) Dollars.

VI.

That on the 6th day of September, 1910, this Cross-complainant notified said Westinghouse Electric & Manufacturing Company that [41] the said Spaulding had by reason of the failure on the part of the Westinghouse Electric & Manufacturing Company to carry out its portion of said contract rescinded his contract with the said Samson Iron Works, and that said Samson Iron Works would hold said Westinghouse Electric & Manufacturing Company liable for all loss and damage accruing therefrom; and thereafter, to wit, on September 12th, 1910, said defendant rescinded its said contract with said plaintiff.

WHEREOF, said Cross-complainant prays for judgment against said Westinghouse Electric & Manufacturing Company in the sum of Seven Thousand Six Hundred and Ninety-three and 34/100 (7,693.34) Dollars, together with interest thereon from the 6th day of September, 1910, and costs of suit.

NATHAN H. FRANK,

IRVING H. FRANK,

Attorneys for Cross-complainant, Samson Iron Works. [42]

**Exhibit "A" [to Cross-complaint (Agreement Dated
May 25, 1910, Between Westinghouse Electric
and Mfg. Company and Samson Iron Works).]**

EXHIBIT "A."

WESTINGHOUSE ELECTRIC & MANUFACTURING COMPANY.

Proposal.

Duplicate. Pittsburg, Pa., May 25, 1910.
Samson Iron Works.

(Hereinafter called the Purchaser),
Stockton, Cal.

Gentlemen:

Westinghouse Electric & Manufacturing Company (hereinafter called the Company), proposes to furnish the Purchaser, electrical apparatus and appliances as specified below: All apparatus included herein is to be delivered and erected on foundations in the basement of the Spaulding Building, Portland, Oregon.

1—75 K.W., Compound wound, direct current, E. T., three wire generator, 250–125 volts, 265 R. P. M., complete with all three wire parts, and field rheostat.

The above generator is to be shipped immediately from San Francisco, Cal., and is to be furnished with a temporary switchboard, pending receipt of the complete switchboard as specified below.

This generator with its gas engine will be considered as the first of three units which will be installed in the Spaulding Building. This first unit has to be in operation by July 1st, 1910, and it is agreed

and understood that payment in the amount of \$1500.00 will be made on the total contract price, immediately upon installation and acceptance, which payment will not be made later than July 15, 1910.

1—75 K.W., compound wound, direct current, E.T., three wire generator, 250–125 volts, 275 R.P.M., complete with all three wire parts and field rheostat.

1—100 K. W. compound wound, direct current E.T. three wire generator, 250–125 volts, 250 R.P.M., complete with all three wire parts and field rheostat.

For the control of all of the above generators, there will be furnished One (1) four panel type 5-D switchboard, consisting of three (3) generator panels and one (1) load panel, all in accordance with specifications hereto attached.

There will also be furnished and installed in conduits to be laid by the Spaulding Building in the Power House floor, all necessary cables in proper lengths and sizes for the complete connections from all generators to their respective switchboard panels, and also from the load panel to the main distribution panel. [43]

All necessary and proper connections will be made from each generator to its respective generator panel with proper regard for multiple operation of all of these units.

DELIVERY.

Delivery of the second 75 K.W. generator and the 100 K.W. generator will be made from our factory in approximately 90 days from date of receipt of

order, with full and complete information.

TERMS.

Full payment for the second and third units as mentioned above, will be made immediately upon erection and acceptance, it being further agreed and understood that this payment shall not exceed 45 days from date of Bill of Lading, showing shipment from our factory, East Pittsburg.

If partial shipments are made of the second and third units, it is understood that payments will be made on the same basis as above in pro rata amounts of the total contract figure.

PERFORMANCE SPECIFICATIONS.

The operation of all of the above generators will be in accordance with specifications hereto attached.

PRICE.

The price of all of the above apparatus including freight, cartage, erection of generators on foundations supplied by the Spaulding Building, installation and all connections to switchboard, necessary cables for same and delivery of the armatures of the second 75 K.W. and the 100 K.W. to the Samson Iron Works, Stockton, Cal., but not including pressing of the armatures on to the engine shafts, will be

Seven Thousand Eight Hundred and fifty 00/100 Dollars (\$7,850.00). [44]

WESTINGHOUSE ELECTRIC & MANUFACTURING COMPANY.

Pittsburg, Pa.

PERFORMANCE SPECIFICATION.

DIRECT CURRENT ENGINE TYPE GENERATOR.

THREE WIRE.

For SAMSON IRON WORKS—Spaulding Building. Date May 25, 1910.
No.

NORMAL (FULL LOAD) RATING:

Specification

Item.	Number.	Kw.	Volts.	Amperes.	Winding.	Poles.	R. P. M.	Frame.
(a)	5830	75	250- 125	300	compound	6	265	Vert. Split
(b)	5829	75	"	"	"	6	275	" "
(c)	5840	100	"	400	"	6	250	" "

CONSTRUCTION.

GENERAL DESCRIPTION:—The armature and commutator will be built together upon a ventilated sleeve or spider, and arranged to be pressed on the shaft. The field frame will be provided with screws and liners for adjusting its position. Foundation bolts are not included. Shaft Keys are not included where the armature is to be pressed on engine shaft.

FIELD:—The field frame of these generators will be made of a high grade of iron or steel, sound and free from blow holes. The poles will be made of laminated steel and so proportioned as to reduce the armature reaction. They will be bolted to the field frame and can be readily removed. For compound wound generators, the series and shunt field coils will be so proportioned as to automatically give the

voltage indicated under "Regulation." For shunt wound generators, the field coils will be so wound that voltage regulation can be obtained by means of a field rheostat. The coils will be insulated in a suitable manner with material which can be subjected to a temperature of 90 degrees Centigrade without injury.

ARMATURE:—The armature will be of the drum type with open slots for the winding. The coils will be interchangeable and will form a winding such that its circuits will not become unbalanced with the armature displaced as much as $1/32$ inch from its geometrical center. Before being placed in the slots the coils will be completely insulated in a substantial manner with material which can be subjected to a temperature of 90 degrees Centigrade without injury. The coils will be held in the slots by hard fibre wedges. The core will be built up of high grade laminated sheet steel of good magnetic quality. [45]

COMMUTATOR:—The commutator will be built on an extension of the armature spider. It will be made of copper bars hard drawn to gauge and securely clamped in position. The bars will be thoroughly insulated by mica. The leads from the armature coils will be soldered to the necks of the commutator and each joint will have as great carrying capacity as the armature conductor.

BRUSHES:—The arms carrying the brushes will be strong and rigid and will be supported by a ring which may be shifted for adjusting the brushes. The brush holders will be of the sliding shunt type. Carbon brushes will be used, and they will be of such

size and number as to carry all loads specified.

VENTILATION:—The armature spider, core and windings will be provided with ventilating spaces and the design will be such that the rotation of the armature will set up a forced circulation of air through them. Spaces will be left between the field coils, so that a free circulation of air will be obtained while the machine is in operation, and the ends of the armature coils will be so formed that the air will circulate freely through them.

PERFORMANCE.

COMMUTATION:—The brushes having been once adjusted, there will be practically no sparking or burning of the brushes or blackening of the commutator within the limits of the time loads specified, nor will there be injurious sparking at the momentary overloads.

REGULATION:—The regulation is based on a variation of speed in the prime mover of not more than 2 per cent from no load to full load. A less amount of compounding can be obtained by adjusting a shunt to the series winding. The generators covered by these specifications, however, should not be operated with a full load voltage less than 94 per cent of normal full load voltage, or a no load voltage higher than 92 per cent of normal full load voltage.

Item.	Commutation Without Shifting Brushes.		Regulation—Compound Wound Generators Only	
	No Load to.	Momentarily.	No Load Voltage.	Full Load Voltage.
(a)	50% Overload	75% Overload	230	250
(b)	50% Overload	75% Overload	230	250
(c)	50% Overload	75% Overload	230	250

EFFICIENCY:—The efficiencies are to be calculated from the 12 R losses in the armature winding and field coils, brushes and rheostats, core loss and brush friction, these losses being measured separately and based on normal rated load, speed and voltage.

TEMPERATURE:—Temperatures are to be measured by thermometer, and for room temperatures other than 25 degrees Centigrade corrections according to the Standardization Rules of the American Institute of Electrical Engineers will apply.

[46]

Item.	Efficiency Per Cent Approx.				Temperature Rise Deg. C. Followed by		Commuta- tor May Rise	Momen- tary Over-
	$\frac{1}{2}$	$\frac{3}{4}$	Full	$1\frac{1}{4}$	Full	$1\frac{1}{4}$	Above	load
	Load.	Load.	Load.	Load	Load	for 2	Other	Without
					24 Hours.	Hours.	Parts.	Injury.
(a)	90.5	91.5	91.5	90.25	35	50	0	75%
(b)	90.5	91.5	91.5	90.25	35	50	0	75%
(c)	91	91.5	91.2	90	35	50	0	75%

METHOD OF TEST:—All tests will be conducted in accordance with the Standardization Rules of the American Institute of Electrical Engineers, and, when feasible, will take place at the Works of Westinghouse Electric & Manufacturing Company. On all points not covered by the Rules of the A. I. E. E., the standard test rules of Westinghouse Electric & Manufacturing Company will be followed. Where the temperature guarantee is for a period of 24 hours, it is understood that in making tests the run will be only for such length, of time as is required to reach a constant temperature. When completed, the generators will be subjected to insulation tests in accordance with the Rules of the A. I. E. E. [47]

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Pittsburg, Pa.

SWITCHBOARD INQUIRY AND DATA
SHEET.

Three copies of this sheet, completely filled out, must accompany every switchboard contract or order; one copy will be attached to Purchaser's copy of contract.

May 25, 1910.

Switchboard for SAMSON IRON WORKS—
Spaulding Building, Portland, Oregon.

1. Name by which the plant is known—Spaulding Building.
2. Kind of service—Light and power (Elevators).
(State whether lighting, power, etc., and if A. C. give per cent power factor, or failing this, the character and proportionate division of the load.)
3. Is there any other switchboard in this plant?
No.

(If new switchboard must harmonize in design or appearance with any other switchboard, give on a separate sheet fullest description of same with all necessary center lines and dimensions, location of bus bars and other pertinent information. A sketch may be necessary. Give direction of rotation of rheostat hand wheels necessary to raise the voltage, finish of instruments, description of

marble or slate panels including bevels, with data or samples if it is necessary that panels should match closely.)

4. Finish of Board
- {

Standard—Black Marine
..... Marble, Shade
Std. Black Marine Slate

(Polished or any special finish require addition to standard price.)

5. Sequence of panels and general data (see also Panel Specification, Form P-1609):

(Panels to be numbered from left to right facing switchboard. [48])

Panel No.	Description of Apparatus or Circuit to be Controlled.	No. of Conductors per Lead. #	:Data for Panel Terminals:			Do Leads Come to Panels from Above or Below?
			Solid or Stranded.	Area of Cable in Circ. Mills. (#)	Diameter	

- 1 75 K. W. three-wire generator.
- 2 “ “ “ “
- 3 100 K. W. three-wire generator. Below
- 4 Load Panel for above.

Ground Leads.

For generators give size of each main, equalizer and field lead, marking same M., E. and F., respectively.

For transformers give size of each high tension and low tension lead, marking same H. T. and L. T., respectively.

For feeders give size of each trolley feeder for railway work and size of ground leads.

For non-grounded circuits give size of each outgoing lead.

If provision for Westinghouse Standard cables will be acceptable mark simply "STD."

(#) Only required where series transformers are located on cables, or cable bushings are to be provided for.

6. Operation of Generators—In parallel.

(State if "in parallel." If not, explain operation. If all panels and connections are not strictly standard, describe connections required and send rough diagram.)

7. Are generators separately excited?

8. Do exciters operate in parallel with others?

9. Must Rheostats be proportioned to operate with an automatic voltage (Tirril) Regulator? Yes.

(See forms P-1045 and P-1046.)

10. Does purchaser insist that large rheostats and meter transformers be supported on rear of panels? No.

(The Company's standard practice is to locate large rheostats and meter transformers apart from switchboard wherever necessary to make rear of panels accessible. Outline drawings will be sent to purchaser so that proper provision can be made. They will not be mounted on rear of panels in each case unless specially provided for.)

11. If feeder regulators are used, can they be operated in the same manner as sprocket operated rheostats? If not, indicate relative arrangements of regulators and panels. [49]

12. Finish of Meters and trimmings—Standard (Special finish requires addition to standard price.)

13. Will purchaser require light load accuracy of integrating wattmeters, thus requiring separate series transformers, or can wattmeters be operated on series transformers with other meters? . . .
14. Can any apparatus be operated from meter transformers now installed in plant? . . .
15. Will Westinghouse Automatic Synchronizer be required? . . .
16. Are we to adhere strictly to specifications? If not, how much may be deviate, and may we put in alternate propositions? . . .
17. Basis of Proposition. . . .

(In making inquiry for quotation state maximum economy, meaning cheaper and fewer instruments, or best and most convenient layout, meaning highest grade of apparatus and as much apparatus as could perform useful functions, and often more liberal spacing.)

DATA TO BE FILLED IN WHEN ORDER IS
CLOSED.

18. Board is to be erected...48...inches from the wall.
19. Has full information noted under question 3 been sent. Yes.
20. Complete data regarding all rheostats and starting devices to be provided for—Has this been sent? . . .

(If these are not Westinghouse devices, send all necessary templates, drawings and dimensions with manufacturers' names and

identifying data. If new face plate is wanted for resistance, give number of contracts, capacity in amperes, resistance, dimensions, name of manufacturer, and any other pertinent information. If rheostats are Westinghouse, identify same. For remote control rheostats fill out leaflet No. 2714 and attach hereto.)

21. Send drilling plans, data and all necessary dimensions on foreign apparatus—Has this been done? . . .

22. If apparatus is remote control, sufficient drawings, sketches and information must be sent to show location of apparatus and include enough data of floors and building details to make designs. Has this been sent? . . .

23. Will purchaser require any drawings for approval or erection? Yes—for erection.

Shall the Company await approval of drawings before starting manufacture? No. [50]

24. If D. C. Generators are to be provided for, are series coils connected on the positive or negative side? STANDARD.

25. Does any panel ordered require special arrangement of apparatus? No.

(If special arrangement is desired, send sketch.)

26. Are meters to be shipped with panels or are they to be held at factory until needed? WITH PANELS.

(If meters are received at destination some time before they are needed, they may be

damaged by rough handling or by condensation on the delicate mechanism causing corrosion. This is likely to occur if purchaser has no adequate place to store them where temperature is sufficiently high and constant.) [51]

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Pittsburg, Pa.

PANEL SPECIFICATION.

A specification must be filled out for each panel except where rating and amount of apparatus is identical with other panels.

There will be supplied Two Panels; Type 5-D, Style No. 23033 marked on Date Sheet as Panels Nos. one and two, to be used for the control of 2-75 K. W. D. C. engine type three wire generators.

(Give capacity in kilowatts or horse-power of the circuit or apparatus controlled, with overload guarantee, also voltage, frequency and power factor (if known), together with name of maker of any apparatus controlled and data for complete identification.

Each Panel will be made up of three sections, the dimensions of which will be as follows:

Upper Section ft., 20 in. high, 32 in. wide and 2 in. thick.

Middle Section ft., 45 in. high, 32 in. wide and 2 in. thick.

Lower Section ft., 25 in. high, 32 in. wide and 2 in. thick.

All front edges to have 1/2 inch bevels.

(See Price List No. 12528 for standard dimensions and bevels.)

Upon each of these Panels will be mounted the following apparatus:

(Give complete identification of all apparatus, specifying capacity in amperes, volts and type No., Style No., or Catalogue No. where these are available. Observe that the factory will require outline drawing and drilling template of all apparatus not furnished by Westinghouse Electric & Mfg. Co.)

Item.	Description.	Style No. or Catalogue No.
1	400 amp. type "C" two pole automatic circuit-breaker with equalizer contacts.	
2	500 amp. type "D" ammeteres.	
1	Pilot lamp bracket and shade.	
1	Ground Detector outfit.	
1	type "Q" rheostat handle and mounting.	
1	Voltmeter plug receptacle.	
2	300 amp. two pole single throw knife switches.	
2	75 amp. two pole single throw knife switches for balancing coils.	

NOTE—Ground detector outfit will be furnished on first panel only. [52]

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Pittsburg, Pa.

PANEL SPECIFICATION.

A specification must be filled out for each panel except where rating and amount of apparatus is identical with other panels.

There will be supplied One Panel; Type 5-D, Style No. 23034 marked on Data Sheet as Panel No. three, to be used for the control of 1-100 K. W. D. C. engine type three wire generator.

(Give capacity in kilowatts or horse-power of the circuit or apparatus controlled, with overload guarantee, also voltage, frequency and power factor (if known), together with name of maker of any apparatus controlled and data for complete identification.)

Each Panel will be made up of three sections, the dimensions of which will be as follows:

Upper Section ft., 20 in. high, 32 in. wide and 2 in. thick.

Middle Section ft., 45 in. high, 32 in. wide and 2 in. thick.

Lower Section ft., 25 in. high, 32 in. wide and 2 in. thick.

All front edges to have 1/2 inch bevels.

(See Price List No. 12528 for standard dimensions and bevels.)

Upon each of these Panels will be mounted the following apparatus:

(Give complete identification of all apparatus, specifying capacity in amperes, volts and Type No., Style No., or Catalogue No. where these are available. Observe that the factory will require outline drawing and drilling template of all apparatus not furnished by Westinghouse Electric & Mfg. Co.)

Item.	Description.	Style No. or Catalogue No.
1	400 ampere type "C" two pole automatic circuit-breaker with equalizer contacts.	
2	600 ampere type "D" ammeters.	
1	Pilot lamp bracket and shade.	
1	Type "Q" rheostat hand wheel and mounting.	
1	Voltmeter plug receptacle.	
2	400 amp. two pole single throw knife and switch.	
2	100 amp. two pole single throw knife switches for balancing coils.	

[53]

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Pittsburg, Pa.

PANEL SPECIFICATION.

A specification must be filled out for each panel except where rating and amount of apparatus is identical with other panels.

There will be supplied One Panel; Type 5-D, Style

No. 45099 marked on Data Sheet as Panel No. four, to be used as a load panel.

(Give capacity in kilowatts or horse-power of the circuit or apparatus controlled, with overload guarantee, also voltage, frequency and power factor (if known), together with name of maker of any apparatus controlled and date for complete identification.)

Each Panel will be made up of three sections, the dimensions of which will be as follows:

Upper Section — ft., 20 in. high, 24 in. wide and 2 in. thick.

Middle Section — ft., 45 in high, 24 in. wide and 2 in. thick.

Lower Section — ft., 25 in. high, 24 in. wide and 2 in. thick.

All front edges to have 1/2 inch bevels.

(See Price List No. 12528 for standard dimensions and bevels.)

Upon each of these Panels will be mounted the following apparatus:

(Give complete identification of all apparatus, specifying capacity in amperes, volts and Type No., Style No., or Catalogue No. where these are available. Observe that the factory will require outline drawing and drilling template of all apparatus not furnished by Westinghouse Electric & Mfg. Co.)

Item.	Description.	Style No. or Catalogue No.
2	2000 ampere illuminated dial type "E" ammeters.	
1	1200 ampere three wire integrating watt- meter. [54]	

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TURING COMPANY.
Pittsburg, Pa.

PANEL SPECIFICATION.

A specification must be filled out for each panel ex-
cept where rating and amount of apparatus is
identical with other panels.

There will be supplied Panel; Type
..... Style No. marked on Data Sheet as
Panel No., to be used for the control of
.....

(Give capacity in Kilowatts or horse-power of
the circuit or apparatus controlled, with
overload guarantee, also voltage, frequency
and power factor (if known), together with
name of maker of any apparatus controlled
and data for complete identification.)

Each Panel will be made up of sections, the
dimensions of which will be as follows:

Upper Section ft. in. high, in. wide
and in. thick.

Middle Section ft. in. high, in. wide
and in. thick.

Lower Section ft. in. high, in. wide
and in. thick.

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All front edges to have inch bevels.

(See Price List No. 12528 for standard dimensions and bevels.)

Upon each of these Panels will be mounted the following apparatus:

(Give complete identification of all apparatus specifying capacity in amperes, volts and Type No., Style No., or Catalogue No. where these are available. Observe that the factory will require outline drawing and drilling template of all apparatus not furnished by Westinghouse Electric & Mfg. Co.)

Item.	Description.	Style No. or Catalogue No.
-------	--------------	-------------------------------

As extras will be furnished—

Mounted on bracket arms at one end
of the board will be—

2—300 volt type “E” illuminated dial
voltmeters.

Mounted on bracket arms at the other
end of the board will be—

2—Type TD 125 automatic voltage regu-
lators.

There will also be furnished all necessary bus bars
and wiring on the back of the boards. [55]

1. All apparatus shall be installed by and at the
expense of the Purchaser, unless otherwise expressly
stipulated.

2. The Company guarantees that the apparatus
herein specified will generate or utilize electrical
energy to their rated capacities without undue heat-
ing and will do their work in a successful manner,

provided they are kept in proper condition and operated under normal conditions, and the Purchaser supplies complete supervision for their operation. The Company agrees to correct, at its own expense, any defects of labor or material in said apparatus which may develop under normal and proper use within thirty days after the starting thereof, provided the Purshaser gives the Company immediate written notice of such defects, and the correction of such defects by the Company shall constitute a fulfillment of its obligations to the Purchaser hereunder.

3. In case it is elsewhere herein agreed that the Company shall erect the apparatus herein specified, it is with the distinct understanding that the Company is to furnish the said apparatus and the labor of the erection only, the Purchaser furnishing all foundations and masonry work, including grouting, supports, builders' or joiners' work, access to premises, excavating and making good again. It is also understood that the material and workmanship of such foundations, supports, etc., shall be first-class and adequate for the purpose intended.

4. The property in and title to the apparatus and the right to use the same under the patents of the Company shall not pass from the Company until all payments hereunder (including deferred payments and payments of notes and renewals thereof, if any) shall have been fully made in cash, and the apparatus herein specified shall remain the personal property of the Company, whatever may be the mode of its attachment to the realty or other property, until fully paid for in cash, and the Purchaser agrees to

perform all acts which may be necessary to perfect and assure retention of title to the said apparatus in the Company. If default is made in any of the payments in the manner and form and at the time herein specified the Company shall be entitled to the immediate possession of said apparatus and shall be free to enter the premises where such apparatus may be located and remove the same as its property, without prejudice to any further damages which the Company may suffer by reason of the Purchaser's refusal or failure to surrender the apparatus when so required. (A resale of the apparatus herein specified or any part thereof or installation of the same, by the Purchaser, as agent or contractor for another shall not alter the effect and intent of the foregoing provisions, it being understood that the Company's rights may be enforced against the Purchaser's vendee or principal the same as they might have been enforced against the purchaser if such resale or installation had not been made.)

5. In order to insure the Purchaser against any possible loss or expense by reason of adverse claims under patents based upon the use of any of the electrical apparatus covered by this proposal, the Company guarantees that the Purchaser shall not be disturbed in the use of the said electrical apparatus by litigation based upon such adverse claims, and to that end the Company will, at its own expense, defend any and all suits or proceedings that may be instituted against the Purchaser for the infringement, or alleged infringement, or any patent or patents by the use of any of the said apparatus, provided such in-

fringement shall consist in the use of said apparatus or parts thereof in the regular course of the Purchaser's business and provided the Purchaser be not in default in payments thereof, and gives to the Company immediate notice in writing of the institution of the suit or proceedings, and permits the Company [56] through its counsel to defend the same, and gives all needed information, assistance and authority to enable the Company so to do; and thereupon in case of an award for damages the Company will pay such award, and in case of an injunction against the Purchaser the Company will pay to the Purchaser any loss or damages to the Purchaser's business caused by such injunction.

6. In consideration of the foregoing guarantee, the Purchaser covenants not to violate or infringe any of the United States Letters Patent relating to any of the apparatus herein specified which are controlled by the Company or under which the Company has the right to manufacture or sell any of such apparatus and not to contest the Company's title thereto or rights thereunder or validity or scope thereof and also agrees that if any trolleys or controllers or parts of trolleys and controllers are covered or are to be covered by this proposal, the Purchaser will not use or permit others to use such trolleys or controllers, or parts of trolleys or parts of controllers, except when incorporated in and used as parts of such car equipment as the Purchaser had prior to July 1, 1896, or of such additional car equipments as the Purchaser has since purchased or may hereafter purchase from the Company or from a

manufacturer duly licensed under the aforementioned patents (the license of the Purchaser to use such trolleys and controllers and parts thereof being expressly qualified as in this paragraph provided.)

7. The Company shall not be held responsible or liable for any loss, damage, detention or delay caused by fire, strike, civil or military authority, or by insurrection or riot, or by any cause beyond its control, and the receipt of the apparatus by the Purchaser shall constitute acceptance for delivery and a waiver of any and all claims for loss or damage due to delay, but this shall not relieve the Company from the obligations specified in paragraph 2 of this page.

8. The Company will recommend engineers for service in installing and operating the apparatus herein specified if desired by the Purchaser, whose compensation shall not be less than \$7.00 per day, each, and boarding and traveling expenses, all of which shall be paid by the purchaser; it being understood and agreed that during the term of such service the said engineers shall be the Purchaser's employees' for whose acts the Company shall assume no responsibility.

9. The Purchaser shall provide and maintain, in the name of Westinghouse Electric & Manufacturing Company, sufficient insurance on the apparatus herein specified, against loss or damage by fire during the period between delivery and final payment, to cover the unpaid balance of the purchase price, and, failing so to do, no loss or damage by fire during the aforesaid period shall serve to relieve the Purchaser of any of the obligations imposed by this agreement.

10. In case the Company, under this proposal, furnishes oil, wire, cable or other material requiring special carriers (such as oil barrels, reels, etc.), then the Purchaser will pay to the Company, under the terms of this agreement, the value of such carriers in addition to the contract price. Upon return to the proper receiving point designated by the Company of such carriers in first-class condition, the Company will credit the Purchaser the full amount previously charged; provided, however, that invoice or memorandum and necessary shipping documents are promptly forwarded to the Company and return shipment is made within four months from the original date of shipment, charges prepaid. [57]

PRICE: As hereinbefore specified.

TERMS as follows: All payments shall be made in New York or Pittsburg funds and with reference to the bill of lading, in accordance with the following terms; and, in case partial shipments are made at different times, pro rata payments shall be made therefor. If shipment of the apparatus herein specified, or any material part therefor, is delayed from any cause for which the Purchaser is directly or indirectly accountable, the date of completion of the apparatus by the Company shall be regarded as the date of shipment, in determining when payments for said apparatus are to be made, and the Company shall be entitled to receive reasonable compensation for storing the completed apparatus, which shall be held at the Purchaser's risk.

Fifty (50) per cent Sight Draft attached to Bill of Lading.

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Forty (40) per cent Thirty (30) days from date of Bill of Lading.

Ten (10) per cent Sixty (60) days from date of Bill of Lading.

As herein before specified.

SHIPMENT: The apparatus specified above will be shipped as follows:

As herein before specified.

AGREEMENT: All previous communications between the parties hereto, either verbal or written, with reference to the subject matter of this proposal are hereby abrogated, and this proposal, duly accepted and approved, constitutes the agreement between the parties hereto, and no modification of this agreement shall be binding upon the parties hereto, or either of them, unless such modification shall be in writing, duly accepted by the Purchaser and approved by an executive officer of the Company.

The foregoing proposal must be accepted by the Purchaser within twenty (20) days from its date and must be approved by an executive officer of the Company in order to make it binding upon the Company.

Respectfully yours,

WESTINGHOUSE ELECTRIC & MANUFACTURING COMPANY,

By CARL L. WERNICKE.

Approved: Pittsburg, Pa., July 18, 1910.

WESTINGHOUSE ELECTRIC & MANUFACTURING COMPANY,

By H. D. SHUTE,

Acting Vice-president.

Witness: J. — DOLAN.

ACCEPTANCE.

The foregoing proposal is hereby accepted at the prices and upon the terms and conditions named therein.

SAMSON IRON WORKS,

By S. H. HEAD,
Sales Manager.

Dated May 26, 1910.

Witness: CARL L. WERNICKE. [58]

State of California,

City and County of San Francisco,—ss.

J. M. Kroyer, being first duly sworn, deposes and says: That he is an officer of Samson Iron Works, a corporation, defendant and cross-complainant in the above-entitled cause, to wit, the President thereof; that he has read the foregoing cross-complaint, and knows the contents thereof; that the same is true of his own knowledge, except as to the matters therein stated upon information and belief, and that as to those matters he believes it to be true.

J. M. KROYER.

Subscribed and sworn to before me this 13th day of October, 1911.

[Seal]

CHARLES EDELMAN,

Notary Public in and for the City and County of San Francisco, State of California.

My commission expires April 9th, 1914.

Receipt of a copy of the within cross-complaint is hereby acknowledged this 16th day of October, 1911.

J. C. CAMPBELL,
Attorney for Plaintiff.

[Endorsed]: Filed Oct. 16, 1911. Southard Hoffman, Clerk. By J. A. Schaertzer, Deputy Clerk.
[59]

*In the Circuit Court of the United States, Ninth Circuit,
Northern District of California,*

No. 15,366.

WESTINGHOUSE ELECTRIC AND MANUFACTURING COMPANY (a Corporation),
Plaintiff,

vs.

SAMSON IRON WORKS (a Corporation),
Defendant.

Plaintiff's Answer to Defendant's Cross-complaint.

Now comes the plaintiff, and for answer to the cross-complaint of defendant on file herein, alleges and denies as follows:

I.

Denies that on the 26th day of May, 1910, the said plaintiff and defendant made or entered into a certain written agreement a copy of which is attached to said cross-complaint, marked exhibit "A" and referred to and made a part thereof, or entered into any agreement whatever, but alleges in this behalf that said plaintiff and said defendant and cross-complainant made and entered into a certain written agreement as in paragraph III of the complaint herein set forth.

II.

Denies that at the time of entering into said alleged contract, or at any other time, or at all, said

plaintiff knew that the same was to be, or that the same was then or there, or at any time, or at all, between said plaintiff and said [60] defendant and cross-complainant, intended to be an integral part, or any part, of a contract then about to be entered into between said defendant and cross-complainant and one Z. S. Spaulding of Portland, Oregon, for the installation of said electrical or any work in said alleged contract mentioned in the Spaulding Building in Portland, Oregon, or of any contract. Alleges that plaintiff has no information or belief upon the subject sufficient to enable it to answer the same and placing its denial upon that ground denies, that under the terms of said alleged contract, or of any contract, said Samson Iron Works agreed with said Spaulding to guarantee to complete the installation of said electrical work at the times or in the manner in said alleged contract between said plaintiff and said defendant and cross-complainant set forth, or at any time or in any manner or at all.

III.

Denies that said plaintiff failed to have the First Unit installed as in said alleged contract set forth by July 1st, 1910, as in its said alleged contract agreed, or by any time or at all so failed; or that plaintiff further failed or neglected or at all failed or neglected to deliver the Second K. W. Generator or the 100 K. W. Generator, in said alleged contract set forth, within ninety days from the date of receipt of order.

IV.

Denies that in consequence of the alleged failure of said plaintiff to keep or perform its said alleged

contract as in said Cross-complaint set forth, or in consequence or by reason of any fault, failure or neglect of said plaintiff, the said defendant and cross-complainant was prevented from completing the [61] installation of the said electrical apparatus or appliances in the said Spaulding Building in Portland, Oregon, as in its said alleged contract with said Spaulding set forth, or from completing the installation of any electrical apparatus or appliances, or was at all so prevented, or that defendant and cross-complainant was otherwise or at all put to large cost and expense, or any cost or expense in attempting to perform said alleged contract, or in any other manner, to its loss or damage in the sum of \$7,693.34, or to its loss or damage in any sum whatsoever.

V.

Denies that on the 6th day of September, 1910, or at any time or at all, defendant and cross-complainant notified said Westinghouse Electric and Manufacturing Company that said Spaulding had by reason of the failure on the part of the Westinghouse Electric and Manufacturing Company to carry out its portion of said alleged contract, or at all, through the fault, failure or neglect of said plaintiff, rescinded its said alleged contract with the said Samson Iron Works.

VI.

Further answering, plaintiff alleges that on or about the 25th day of August, 1910, and before the time set in said contract in said complaint set forth for delivery of the second and third units, said defendant and cross-complainant notified said plaintiff

that said defendant and cross-complainant would not accept plaintiff's generator nor any other part of plaintiff's machinery, and that the said contract in said complaint set forth was void and of no effect.

WHEREFORE, plaintiff prays that defendant's cross-complaint be dismissed, and for judgment as in the complaint herein prayed for, and for its costs herein incurred.

J. C. CAMPBELL,
Attorney for Plaintiff. [62]

United States of America,
Northern District of California,
City and County of San Francisco,—ss.

W. W. Briggs, being first duly sworn, deposes and says: That the within-named plaintiff, the Westinghouse Electric and Manufacturing Company, is a corporation and that said affiant is an officer of said corporation, to wit, the managing agent thereof, and that he makes this affidavit for and on behalf of said plaintiff corporation. That he has read the foregoing answer to defendant's cross-complaint in the within-entitled action and knows the contents thereof, and that the same is true of his own knowledge, except as to the matters which are therein stated upon information or belief, and that as to those matters he believes it to be true.

W. W. BRIGGS,

Subscribed and sworn to before me this 24th day of November, 1911.

[Seal]

FLORA HALL,
Notary Public, in and for the City and County of San Francisco, State of California.

[Endorsed]: Filed Nov. 24, 1911. Southard Hoffman, Clerk. By J. A. Schaertzer, Deputy Clerk.
[63]

*In the District Court of the United States, in and for
the Northern District of California, Division Two.*

No. 15,366.

WESTINGHOUSE ELECTRIC AND MANUFACTURING COMPANY (a Corporation),
Plaintiff,

vs.

SAMSON IRON WORKS (a Corporation),
Defendant.

Amended Bill of Items.

To Defendant Herein and to Its Attorneys:

You and each of you will please take notice that plaintiff herein tenders its Bill of Items in the above-entitled action in pursuance of the demand for a Bill of Items heretofore made by defendant, as follows:

FIRST CAUSE OF ACTION:

One (1) generator, together with temporary switchboard		\$1,500.00
Cable		330.50
Bed-plates		90.00
The cost of building the 1-4 Panel type 5-D switchboard consisting of 3 generator panels and 1 load panel called for in contract set forth in amended complaint was.....	\$1,531.65	
This apparatus was dismantled by plaintiff and most of the materials therein were turned into stock and used again, of the value of.....	\$1,253.80	
Part of said material was scrapped, of the value of.....	14.03	1,267.83
Loss suffered in dismantling switchboard.....	\$ 263.82	263.82

Amount allowed for 1-4 type 5-D switchboard consisting of 3 generator panels and one load panel called for by said contract in figuring total contract price.....	\$1,899.20	
Cost of construction of same.....	1,531.65	
		<hr/>
Profit which would have been made had contract been performed.....	\$ 367.55	367.55
		<hr/>
Total		\$2,551.87

[64]

SECOND CAUSE OF ACTION:

Contract price		\$7,850.00
Less total of following:		
2d and 3d generators not delivered.....	\$2,477.67	
Freight on same not incurred	305.60	
Switchboard not delivered.....	1,267.83	
Freight on same not incurred.....	100.80	4,151.90
		<hr/>
		\$3,698.10

Dated April 23, 1914.

J. C. CAMPBELL and
DAVID L. LEVY,
Attorneys for Plaintiff.

Receipt of a copy of the within acknowledged this
23d day of April, 1914.

NATHAN H. FRANK,
IRVING H. FRANK,
Defts. Attorneys.

[Endorsed]: Filed May 15, 1914. W. B. Maling,
Clerk. By C. W. Calbreath, Deputy Clerk. [65]

*In the District Court of the United States, in and for
the Northern Division of California, Division Two.*

No. 15,366.

WESTINGHOUSE ELECTRIC AND MANUFACTURING COMPANY (a Corporation),
Plaintiff,

vs.

SAMSON IRON WORKS (a Corporation),
Defendant.

Amendment to Amended Bill of Items.

On page 1 thereof, strike out caption "FIRST CAUSE OF ACTION" and insert in lieu thereof the caption "SECOND CAUSE OF ACTION."

On page 2 thereof, strike out caption "SECOND CAUSE OF ACTION" and insert in lieu thereof the caption "FIRST CAUSE OF ACTION."

J. C. CAMPBELL and

D. L. LEVY,

Attorneys for Plaintiff.

[Endorsed]: Filed Jun. 5, 1914. W. B. Maling,
Clerk. By J. A. Schaertzer, Deputy Clerk. [66]

*In the District Court of the United States in and for
the Northern District of California, Division
Two.*

No. 15,366.

WESTINGHOUSE ELECTRIC AND MANUFACTURING COMPANY, a Corporation,
Plaintiff,

vs.

SAMSON IRON WORKS, a Corporation,
Defendant.

Notice of Demand for Bill of Items.

To Samson Iron Works a Corporation, Defendant
and Cross-complainant Herein, and to Messrs.
Frank & Frank, Attorneys for said Defendant
and Cross-complainant:

Please take notice that plaintiff and cross-defendant herein demands a bill of particular items of the account mentioned in defendant's cross-complaint on file herein.

Dated April 23, 1914.

J. C. CAMPBELL and
DAVID L. LEVY,

Attys. for Plaintiff and Cross-defendant.

Received duplicate of the within this 14th day of
May, 1914.

NATHAN H. FRANK,
IRVING H. FRANK,
Attys. for Defendant.

[Endorsed]: Filed May 15, 1914. W. B. Maling,
Clerk. By C. W. Calbreath, Deputy Clerk. [67]

*In the District Court of the United States in and for
the Northern District of California.*

No. 15,366.

WESTINGHOUSE ELECTRIC AND MANUFACTURING COMPANY, a Corporation,
Plaintiff,

vs.

SAMSON IRON WORKS, a Corporation,
Defendant.

BILL OF PARTICULARS FURNISHED BY THE
SAMSON IRON WORKS, IN COMPLIANCE
WITH THE DEMAND OF THE WESTINGHOUSE
ELECTRIC AND MANUFACTURING COMPANY,
OF THE ITEMS OF THE ACCOUNT MENTIONED
IN THE DEFENDANT'S CROSS-COMPLAINT ON
FILE HEREIN:

To freight on engine and parts shipped June 23d.....	\$58.23	
To freight on engine shipped Aug. 1st.. .. .	72.40	
Freight on return of machinery from Portland to Stockton	95.35	
Crating and cartage of engine at Stockton....	60.00	\$258.98
<hr/>		
To 70 days' labor of C. E. Mitchell dating from June 23d to Sept. 19, 1910, at \$4.00 per day.....	280.00	

His living expenses, common labor
and material purchased by C.
E. Mitchell during the above
period. 727.15

Total. 1007.15

Industrial Engineering Co.:

To services rendered, paid on
Feb. 7, 1911. 500.00

To 19 days' service of S. H. Head
at \$8 per day. 152.00

To expenses incurred by our Mr.
S. H. Head while in San Fran-
cisco. \$63.45

Ditto in Portland. 242.00

Total. 457.45

Carried forward. \$2,375.58

[68]

Brought forward. \$2,375.58

To 3 days' services of J. M.
Goodin at \$7.00 per day. \$21.00

Expenses incurred. 7.30

Total. 28.30

Hottenworth & Maskell, Portland:

To pipe, pipe fittings and labor. 662.59

Chas. F. Pedersen:

For services rendered in hand-
ling machinery into Spalding
Bldg. in July. \$60.00

100 *Westinghouse Electric & Manufacturing Co.*

To services ditto in Aug., sec-
ond engine..... 78.50

Total..... 138.50

Safety Stove-pipe & Steel Metal Co.:

To making pan and tank July
20th..... 7.00

Putting flange on pipe Aug. 6th. 8.00

Making pan and tank Aug. 17th. 7.00

Total..... 22.00

Western Union Telegraph Co.:

To messages sent to Portland
pertaining to machinery in
Spalding Bldg..... 13.12

Telegrams and stenographer's
services from Mr. J. M.
Kroyer, San Francisco, to S.
H. Head, Portland, up to Sept.
13, 1910..... 21.80

Nicolai-Neppach Co.:

To timbers purchased..... \$2.50

Wire and timbers purchased.. 2.15

Total..... 4.65

Helzer Uden Machine Works:

To machine work and materials
furnished by this company as
per their invoice total..... 149.75

Pacific Electric Engineering Co.:

To rent on ammeter..... .50

B. C. Ball, M. E., to services rendered as engineer.....	50.00
Crown Columbia Pulp & Paper Co.:	
To use of teams, drivers and common labor.....	15.25
Hagemann & Foard Co.:	
To rope purchased.....	2.80
Muirhead & Murhard Co.:	
To pipe purchased and expressage on same.....	3.10
Preer Cutlery & Tool Co.:	
Scale.....	.90
Helser Bros. Transfer Co.:	
To hauling machinery from Spalding Bldg. to steamer landing....	60.00
Olsen-Roe Transfer Co.:	
To hauling parts of machinery from steamer landing to Spalding Bldg.....	17.00
Carried forward.....	\$3,565.84
[69]	
Brought forward.....	\$3,565.84
Wiliamette Iron Works:	
To work making Prony brake..	47.50
Cartage on return of engine at Stockton.....	40.00
	<hr/>
	\$3,653.34

Loss of profit on the contract with

Z. S. Spalding to furnish him

with gas engines and generators.

\$4,040.00

\$7,693.34

NATHAN H. FRANK,
IRVING H. FRANK,
Attorneys for Defendant.

[Endorsed]: Filed Oct. 8, 1915. W. B. Maling,
Clerk. By J. A. Schaertzer, Deputy Clerk. [70]

*In the District Court of the United States, in and for
the Northern Division of California, Second
Division.*

No. 15,366.

WESTINGHOUSE ELECTRIC AND MANUFAC-
TURING COMPANY, a Corporation,
Plaintiff,

vs.

SAMSON IRON WORKS, a Corporation,
Defendant.

Verdict.

We, the jury, find in favor of the defendant.

GEO. U. HIND,
Foreman.

[Endorsed]: Filed June 18, 1914. Walter B. Mal-
ing, Clerk. [71]

At a stated term, to wit, the March term, A. D. 1914, of the District Court of the United States of America, in and for the Northern District of California, Second Division, held at the courtroom in the City and County of San Francisco, on Thursday, the 18th day of June, in the year of our Lord one thousand nine hundred and fourteen. Present: The Honorable WILLIAM C. VAN FLEET, District Judge.

[Order Directing That Verdict be Recorded, etc.]

No. 15,366.

WESTINGHOUSE ELECTRIC & MANUFACTURING CO.,

vs.

SAMSON IRON WORKS.

The parties hereto and the jury being present the trial hereof was resumed by the further arguments of counsel, at the conclusion of which the Court having instructed the jury, they retired at 11:55 A. M. to deliberate upon their verdict. At 2.40 o'clock P. M. the jury returned into court and being asked if they had agreed upon their verdict answered in the affirmative and returned the following verdict which was ordered recorded, namely: "We, the jury, find in favor of the defendant. Geo. U. Hind, Foreman." Mr. Frank moved the Court to enter judgment in favor of defendant in the sum of \$7,693.34, which motion was denied. Ordered that judgment be entered in accordance with said verdict and for costs and that the jury be discharged from further consideration hereof. Upon motion of plaintiff it

was ordered that this cause be continued for the term for further proceedings. [72]

*In the District Court of the United States, in and for
the Northern District of California, Division
Two.*

No. 15,366.

WESTINGHOUSE ELECTRIC & MANUFACTURING COMPANY, a Corporation,
Plaintiff,

vs.

SAMSON IRON WORKS, a Corporation,
Defendant.

Petition for Writ of Error.

Westinghouse Electric & Manufacturing Company, a corporation, plaintiff in the above-entitled action, feeling itself aggrieved by the verdict of the jury and the judgment and decision of the above-entitled court, in favor of the defendant and against plaintiff, made and entered therein on the 18th day of June, 1914, comes now, by J. C. Campbell and David L. Levy and J. C. Campbell, Weaver, Shelton & Levy, its attorneys, and petitions said Court for an order allowing it to prosecute a writ of error to the United States Circuit Court of Appeals for the Ninth Circuit to review said verdict, decision and judgment according to the statute of the United States of America in that behalf made and provided, and for an order fixing the amount of security which plaintiff shall give as supersedeas and for costs on said writ of error, and providing that

upon the giving of such security all further proceedings in this court be suspended and stayed until the determination of said writ of error in said United States Circuit Court of Appeals.

And your petitioner will ever pray.

Dated this 9th day of December, 1914.

WESTINGHOUSE ELECTRIC & MANUFACTURING CO.,

Plaintiff.

J. C. CAMPBELL and

DAVID L. LEVY,

J. C. CAMPBELL, WEAVER, SHELTON & LEVY,

Attorneys for Plaintiff.

[Endorsed]: Filed Dec. 9, 1914. W. B. Maling, Clerk. By J. A. Schaertzer, Deputy Clerk. [73]

In the District Court of the United States, in and for the Northern District of California, Division Two.

No. 15,366.

WESTINGHOUSE ELECTRIC & MANUFACTURING COMPANY, a Corporation,
Plaintiff,

vs.

SAMSON IRON WORKS, a Corporation,
Defendant.

Assignment of Errors and Prayer for Reversal.

Plaintiff herein, by J. C. Campbell and David L. Levy and J. C. Campbell, Weaver, Shelton & Levy, its attorneys, hereby assigns the following errors of

said Court upon which plaintiff will rely, in case its petition for writ of error is granted, upon the prosecution of said writ of error in the United States Circuit Court of Appeals for the Ninth Circuit:

1. The said District Court erred in overruling the objection of plaintiff to the question asked by defendant of witness J. M. Kroyer, to wit: "Q. What number of BTU's of gas is necessary to develop the 100 horse-power in a 100 horse-power gas engine," to which ruling plaintiff excepted, and the question was answered as follows: "A. Not less than 650 BTU's would develop in that engine the 100 horse-power. Ordinary illuminating gas is said to contain from 675 to 810, but to be conservative we based our calculations upon it at 650."

2. Said Court erred in admitting in evidence the testimony of W. M. Perry and E. L. Hall, whose depositions, taken in Portland, were read in behalf of defendant.

3. Said Court erred in overruling plaintiff's objection to [74] defendant's question to said witness, to wit: "Q. Can you state how long it would take in 1910 to freight an apparatus such as a generator from Pittsburgh to Portland," to which ruling plaintiff excepted, and to which question the witness answered: "A. We figured at that time that twenty-one days for freight to go from say East Pittsburgh or Philadelphia."

4. Said Court erred in overruling plaintiff's objection to defendant's question to the witness Kroyer as follows: "Q. Now, referring to that, Mr. Kroyer, state what the detail is of the damages and losses by

reason, as we claim, of the failure of these parties to carry out their contract," to which ruling the plaintiff excepted, and in response to which question the items of defendant's alleged damage were admitted in evidence. The same specification is made to the following question: "Q. What was the amount of profit on the contract of the Spaulding Company," to which it was answered: "A. Our lost profit we figured to be \$4,040.00." The same specification is made in regard to the question: "Q. How did you figure that," and the answer thereto.

5. Said Court erred in overruling plaintiff's objection to defendant's question to witness S. H. Head, to wit: "Q. What passed between you and him (referring to Colonel Spaulding)," to which ruling the plaintiff excepted and in response to which question witness stated the conversation between himself and Colonel Spaulding.

6. Said Court erred in instructing the jury as follows: "On the other hand, should you find that the foundation and other construction for the installation called for by the contract were in readiness in time to enable plaintiff to install with reasonable diligence and put in operation its generator within due time under the contract, but that the failure to have such installation [75] completed and in operation within such time arose from plaintiff's failure or neglect to deliver or erect the same complete, or was because of the defective or insufficient character of the machine, then defendant was entitled to reject it and repudiate the contract and the plaintiff cannot recover, but would itself be

guilty of a breach of the contract," to which instruction plaintiff excepted.

7. Said Court erred in instructing the jury as follows: "In this connection it is claimed by the defendant that proper bed-plates upon which to install such generators as are here involved are an essential feature of the installation to be furnished by the builder of the generator apparatus; the plaintiff, on the other hand, claiming that proper construction and engineering methods as understood in that business require such bed-plates to be furnished by the party installing the engine feature of the unit. The contract in this instance is silent upon this subject, but evidence has been introduced tending to show the custom prevalent in that respect. In this regard, if you find that it was the duty of plaintiff to furnish a proper bed-plate for the first generator, and that the failure to have that structure installed and in successful operation within the required time was in whole or in part by reason of plaintiff's neglect to furnish such bed-plate, then plaintiff was in default in the performance of its contract and defendant was justified in refusing to go on with it, and the plaintiff cannot recover," to which instruction plaintiff excepted.

8. Said Court erred in instructing the jury as follows: "Again, in connection with the defense, it is provided in the contract that delivery of the other two generators specified will be made from the factory in approximately ninety days from date of receipt of orders therefor. This word 'approximately' means within a reasonable limit of a few days; that

is, its effect is to give a [76] reasonable extension of time for performance beyond the ninety days, limit, to be established and determined under all the circumstances. The defendant claims that an order to deliver these generators was sent to the plaintiff on or prior to May 31st, 1910. If you find such to be the fact, those generators should have been delivered on or about August 31st following. There is evidence tending to show that on September 12th the defendant notified the plaintiff company that they would have no further use for those two generators, and that the one already delivered awaited removal by the plaintiff. Up to that time there had been no delivery of the two generators referred to, and if you find that this delay was an unreasonable one, as not warranted by the time specified in the contract, then plaintiff was in default in that respect and the defendant was justified in refusing to receive that part of the apparatus," to which instruction plaintiff excepted.

9. Said Court erred in refusing to give to the jury the following instruction proposed by plaintiff:

"It is in evidence that this order was mailed from the Portland office after having been taken to Portland from San Francisco. It was signed by defendant's manager on May 26th; it was sent from Portland May 31 by mail. Therefore it could not have been received at the factory any earlier than June 4th.

On August 3, 1910, plaintiff sent an invoice to defendant in the amount of \$1,500. Defendant did not pay the same but wrote offering an excuse for its

failure. Plaintiff wrote again to defendant on August 8th, 1910, requesting payment; still defendant did not comply. Another request was made on August 24th.

On August 25, 1910, defendant wrote a letter to plaintiff, received presumably on the following day, in which defendant stated as follows: 'We beg to notify you that we have not and will [77] not under any circumstances accept your generator nor any part of your machinery until you have conclusively proven to us that you have done the work specified in your contract with us which is that you are to supply a generator together with all necessary electrical equipment to deliver 75 Kw's in one instance and 100 Kw's in another instance to a switch-board when direct connected to our engine, and we further notify you that inasmuch as you have violated your contract with us that same is void and of no effect.'

On August 25, 1910, the first unit was operated and the required electrical power could not be developed. At a later test made of the gas engine of the defendant it delivered only a maximum of 78.5 H. P., while there is evidence that to develop 75 Kw. in a generator such as required by this contract, a machine developing between 100 and 125 H. P. would be necessary. Between the 25th of August and and the 2d day of September, 1910, the defendant was ordered by the owner of the Spaulding Building to take its apparatus out of the building," to which refusal plaintiff excepted.

10. Said Court erred in instructing the jury as

follows: "On the question of damages, should you find for the plaintiff you will understand that under the contract between the parties there was no sale of any part of the machinery therein referred to actually consummated. By the express provisions of the contract no property in or title to the apparatus or any part thereof and no right to use the same under the patents of the plaintiff, passed to the defendant, but all of said apparatus remained the personal property of the plaintiff until fully paid for. The contract in that regard provides that if default be made by the purchaser in payments stipulated for at the time specified in the contract, the seller shall be entitled to the immediate possession of said apparatus and be free to enter upon the premises where the [78] same is located and to remove it as its property. If, therefore, you find for the plaintiff, it will not be entitled to recover for the value of the apparatus installed by plaintiff or any part thereof, since it remains its property, and there is no evidence that it has been lost or injured, but it will only be entitled to recover such damages as it has sustained in its endeavor to carry out the contract, such as the expense of the delivery and installation thereof, and the necessary steps to have it returned to it, together with such profit as it would have realized on its sale had the contract been fully executed.

Further, in this connection, it is in evidence that the two generators that were not shipped were subsequently sold by plaintiff. As to those machines, therefore, if you find that they were sold for as much as

plaintiff would have realized for them under the contract, the plaintiff can be allowed nothing for the failure of defendant to accept them.

It also appears that after the contract had been abandoned the plaintiff dismantled the switchboard called for by its terms and distributed its available parts back to its stock. Therefore should your verdict be for the plaintiff it will be entitled, as to this appliance, only to the difference between the value to plaintiff of its parts and the value of the switchboard as a complete article, together with any profit over its cost which would have been realized had the contract been carried out. But you will bear in mind that the different pieces of machinery called for by the contract were not being sold piece-meal. The contract fixes a gross sum as to consideration to be paid for all the apparatus to be furnished by plaintiff thereunder, and therefore, should you find for plaintiff, it will be entitled to a verdict only for the difference between that gross sum and the value to it of the property [79] left on its hands, to be arrived at in the way I have indicated, to which should be added the expense it would have been to in installing the apparatus not delivered had the contract been carried out, which expense the contract provides is to be borne by the plaintiff," to which instruction plaintiff excepted.

11. Said Court erred in refusing to give to the jury the following instruction proposed by plaintiff:

"The contract contains a provision that all previous communications between the parties, either verbal or written, with reference to the subject mat-

ters of the contract or abrogated by the contract, and that the proposal, duly accepted and approved, constitutes the agreement between the parties. You are therefore instructed to disregard all such previous communications and assertions therein with reference thereto," to which refusal plaintiff excepted.

12. Said Court erred in refusing to give to the jury the following instruction proposed by plaintiff:

"If for the reasons I have outlined as the basis therefor you shall conclude that the plaintiff is entitled to your verdict, the measure of damages is as follows:

The contract price for the entire installation is \$7,850. From this you shall subtract the sum of the following items:

1. The market value at Portland, Oregon, in September, 1910, of the second and third generators, if you find that they had such market value;

2. If you find that the permanent switchboard had no market value as such but only as comprising articles which when dismantled could be replaced in stock, the value of the component parts of the switchboard at said time;

3. The freight charge at said time upon the switchboard from [80] East Pittsburgh, Pennsylvania, to Portland, Oregon, had it been shipped; and

4. The cost at that time of labor and material necessary to erect and install said second and third generators, permanent switchboard and other apparatus.

The balance is the amount of damages suffered

by the plaintiff. Whether or not plaintiff received more than the cost of building the second and third generators at a sale to another party is utterly immaterial.

If, therefore, as stated, your verdict shall be for the plaintiff and you shall find that the market value at Portland, Oregon, in September, 1910, of the second and third generators was \$2,827.10; that the permanent switchboard had no market value but only a value as comprising articles which when dismantled could be replaced in stock and that the value of the component parts of the switchboard at that time was \$1,267.83; that the freight at said time upon said switchboard, had it been shipped from East Pittsburgh, Pennsylvania, to Portland, Oregon, would have been \$100.80; and that the cost at that time of labor and material necessary to erect said second and third generators and permanent switchboard was \$400.00; then the amount of your verdict for the plaintiff shall be \$3,254.27," to which refusal plaintiff excepted.

13. Said Court erred in refusing to give to the jury the following instruction proposed by plaintiff:

"The contract provides that the title to the property to be delivered and installed thereunder should remain in the plaintiff until all the payments provided for in the contract were made. But so far as this case is concerned, the insertion of this provision in the contract gave the defendant no more or greater [81] rights than if it has been omitted and should, therefore, be wholly disregarded by you in rendering your verdict," to which refusal plaintiff excepted.

14. The evidence was insufficient to justify the verdict of the jury, decision and judgment in favor of defendant in the following particulars.

a. The evidence established without conflict that the plaintiff furnished the first generator and temporary switchboard provided for in the contract in suit at the time and of the capacity and quality called for by the contract and as soon as the foundation and other construction required were in a condition of readiness, erected and installed said apparatus and put the same in operation, and further, that within approximately ninety days from the date of receipt of defendant's order plaintiff was ready, able and willing to deliver from its factory the two other generators and apparatus called for by the contract, including the permanent switchboard, but that before the time specified for such delivery defendant distinctly and absolutely refused to perform the contract so that defendant's action amounted to a prevention or performance by plaintiff and that plaintiff was therefore at liberty to consider the contract as broken by the defendant and at an end and to desist from further effort on its part to perform the same;

b. That the evidence shows without conflict that by reason of defendant's breach of the contract in suit plaintiff suffered damages measured as follows:

Subtracting from the contract

price for the entire installa-

tion, to wit

\$7,850.00

the sum of the following items:

The market value at Portland, Ore-
gon, in September, 1910, of the
second and third generators, to
wit. \$2,827.10

[82]

The value of the component parts
of the permanent switchboard,
to wit 1,267.83

Freight upon said switchboard had
it been shipped 100.80

Cost of labor and material neces-
sary to erect the second and
third generators and the
switchboard, to wit 400.00

c. The evidence shows without conflict that the plaintiff proceeded to perform the contract in suit in every particular, that the first and only breach thereof was committed by the defendant.

WHEREFORE plaintiff prays that the judgment of said District Court be reversed and that a new trial of said cause be ordered.

WESTINGHOUSE ELECTRIC & MANU-
FACTURING CO.,

Plaintiff.

J. C. CAMPBELL and
DAVID L. LEVY,

J. C. CAMPBELL, WEAVER SHELTON &
LEVY,

Attorneys for Plaintiff.

[Endorsed]: Filed Dec. 9, 1914. W. B. Maling,
Clerk. By J. A. Schaertzer, Deputy Clerk. [83]

*In the District Court of the United States, in and for
the Northern District of California.*

No. 15,366.

WESTINGHOUSE ELECTRIC & MANUFACTURING COMPANY, a Corporation,
Plaintiff,

vs.

SAMSON IRON WORKS, a Corporation,
Defendant.

Order Allowing Writ of Error and Supersedeas.

Upon motion of plaintiff and upon filing the petition for a writ of error and assignment of errors herein, it is

ORDERED, that a writ of error be, and the same is, hereby allowed to have reviewed in the United States Circuit Court of Appeals for the Ninth Circuit the verdict, decision and judgment heretofore rendered herein and other matters and things in said assignment of errors set forth, and that upon the filing herein of a bond in the sum of Three Hundred Dollars (\$300.00), which shall constitute a supersedeas bond and a bond for costs and damages on appeal, all further proceedings in this court shall be stayed until the determination of said writ of error.

Dated December 9th, 1914.

WM. C. VAN FLEET,
Judge.

[Endorsed]: Filed Dec. 9, 1914. W. B. Maling,
Clerk. By J. A. Schaertzer, Deputy Clerk. [84]

[**Bond on Writ of Error.**]

KNOW ALL MEN BY THESE PRESENTS, That we, Westinghouse Electric & Manufacturing Co., a Corporation, as principal, and A. M. IRWIN and R. F. BEHAN, as sureties, are held and firmly bound unto Samson Iron Works, a corporation, in the full and just sum of (\$300.00) Three Hundred Dollars, to be paid to the said Samson Iron Works, a corporation, or its certain attorney, executors, administrators or assigns; to which payment, well and truly to be made, we bind ourselves, our heirs, executors and administrators, jointly and severally, by these presents.

Sealed with our seals and dated this — day of December in the year of our Lord one thousand nine hundred and fourteen.

WHEREAS lately at a District Court of the United States for the Northern District of California in a suit depending in said Court, between Westinghouse Electric & Manufacturing Company, a Corporation, and Samson Iron Works, a Corporation, a judgment was rendered against the said Westinghouse Electric & Manufacturing Company, a Corporation, and the said Westinghouse Electric & Manufacturing Company, a Corporation, having obtained from said Court a writ of error to reverse the judgment in the aforesaid suit, and a citation directed to the said Samson Iron Works, a corporation, citing and admonishing it to be and appear at a United States Circuit Court of Appeals for the Ninth

Circuit, to be holden at San Francisco, in the State of California.

Now, the condition of the above obligation is such, that if the said Westinghouse Electric & Manufacturing Company, a Corporation, shall prosecute said writ of error to effect, and answer all damages and costs if it fail to make its plea good, then the above obligation to be void; else to remain in full force and virtue.

A. M. IRWIN. (Seal)

R. F. BEHAN. (Seal)

Acknowledged before me the day and year first above written.

[85]

United States of America,
Northern District of California,—ss.

A. M. Irwin and R. F. Behan, being duly sworn, each for himself, deposes and says, that he is a freeholder in said District, and is worth the sum of Three (300.00) Dollars, exclusive of property exempt from execution, and over and above all debts and liabilities.

A. M. IRWIN.

R. F. BEHAN.

Subscribed and sworn to before me, this 9th day of December, A. D. 1914.

[Seal]

E. W. LEVY,

Notary Public in and for the City and County of San Francisco, State of California.

Form of bond and sufficiency of sureties approved.

WM. C. VAN FLEET,

Judge.

[Endorsed]: Filed December 9, 1914. Walter B. Maling, Clerk. By J. A. Schaertzer, Deputy Clerk.
[86]

*In the District Court of the United States, in and for
the Northern District of California, Division
Two.*

No. 15,366.

WESTINGHOUSE ELECTRIC & MANUFACTURING COMPANY, a Corporation,
Plaintiff,

vs.

SAMSON IRON WORKS, a Corporation,
Defendant.

**Order [Allowing Plaintiff to February 7, 1915, to
Make Return on Citation].**

Good cause appearing therefor, it is hereby

ORDERED: That plaintiff may have to and including the 7th day of February, 1915, within which to make return on the citation on writ of error heretofore issued in the above-entitled matter.

Dated this 8th day of January 1915.

WM. C. VAN FLEET,
Judge. [87]

*In the District Court of the United States, in and for
the Northern District of California, Division
Two.*

No. 15,366.

WESTINGHOUSE ELECTRIC & MANUFACTURING COMPANY, a Corporation,
Plaintiff,

vs.

SAMSON IRON WORKS, a Corporation,
Defendant.

**Order Extending Time to [January 29, 1915, to]
Make Return on Citation.]**

Good cause appearing therefore, it is hereby.

ORDERED: That plaintiff may have to and including the 29 day of January, 1915, within which to make return on the citation on writ of error heretofore issued in the above-entitled matter.

Dated this 23 day of January, 1915.

M. T. DOOLING,
Judge.

[Endorsed]: Filed Jan. 23, 1915. W. B. Maling,
Clerk. By C. W. Calbreath, Deputy Clerk. [88]

*In the District Court of the United States, in and for
the Northern District of California, Division
Two.*

No. 15,366.

WESTINGHOUSE ELECTRIC & MANUFACTURING COMPANY, a Corporation,
Plaintiff,

vs.

SAMSON IRON WORKS,

Defendant.

**Stipulation Extending Time to Make Return on
Citation.**

It is hereby stipulated by and between the parties hereto that plaintiff may have twenty (20) days from and after the settlement of the bill of exceptions herein within which to make a return on the citation, heretofore issued, on writ of error, to docket said cause and file the record therein, provided the Return day as extended by order of Court has not at this date expired.

NATHAN H. FRANK,
IRVING H. FRANK,
Attorneys for Defendant.
J. C. CAMPBELL and
DAVID L. LEVY,
Attorneys for Plaintiff.

Dated this 28th day of January, 1915.

So ordered:

WM. C. VAN FLEET,
Judge.

[Endorsed]: Filed Jan. 30, 1915. W. B. Maling,
Clerk. By J. A. Schaertzer, Deputy Clerk. [89]

*In the District Court of the United States, in and for
the Northern District of California, Second
Division.*

No. 15,366.

WESTINGHOUSE ELECTRIC & MANUFACTURING COMPANY, a Corporation,
Plaintiff,

vs.

SAMSON IRON WORKS, a Corporation,
Defendant.

Bill of Exceptions.

BE IT REMEMBERED that the above-entitled action came on for trial before the Court, Honorable WILLIAM C. VAN FLEET, District Judge, presiding, plaintiff being represented by J. C. Campbell, Walter Shelton and David L. Levy, and defendant being represented by Nathan H. Frank and Irving H. Frank.

A jury was duly impanelled and sworn to try the case, and the following proceedings were then had.

The contract between the parties to this action, in words and figures as set forth in the answer to the amended complaint herein, was offered and admitted in evidence. Attached thereto and offered and admitted in connection therewith, was the following letter:

**Exhibit [Letter, June 4, 1910, Samson Iron Works
to Westinghouse Electric & Mfg. Co.].**

Stockton, Cal., June 4, 1910.

Westinghouse Electric & Mfg. Co.,

San Francisco, Cal.,

Attention of A. M. Irwin.

Gentlemen: [90]

This is to inform you that Mr. S. H. Head, our
salesmanager, is authorized to sign the electrical con-
tract with you on account of the Spaulding Building.

SAMPSON IRON WORKS.

J. M. CROYER,

President.

Stamped:

Treasury Dept.

S. F.

Jun. 6, 1910.

Westinghouse Elec.

& Mfg. Co. [91]

[Testimony of N. P. Wilson, for Plaintiff.]

N. P. WILSON, sworn on behalf of plaintiff, testi-
fied as follows:

Direct Examination by Mr. LEVY.

I am forty years of age. My business is electrical
engineer. I received my education and instruction
in engineering at Stanford University. I was in the
factory of the plaintiff, in the winding department,
two years, and two years in the testing department.
Then I went with the sales department.

In the year 1910 I was erecting engineer for the

(Testimony of N. P. Wilson.)

Seattle district, which includes the States of Oregon, Washington and Alaska.

From my experience at the works of the Westinghouse Electric & Manufacturing Company I know this concerning the method of numbering generators that are their manufacture. Every generator that is built receives a serial number, most generators receive two serial numbers, one on the stationary part and one on the rotary part. There is no other generator or machine that is manufactured by the Westinghouse Company with same number. The identification is made entirely by these serial numbers.

In the year 1910 I met the representative of the defendant at the Spalding Building in Portland, or was at least told that he was their representative. I was the erecting engineer in that building in charge of the construction, erection and installation of a generator for the Westinghouse Electric & Manufacturing Company, and the first trip I made on the actual construction of this machine was July 9th, working from that time up until the 17th. The first work that I did was to install a temporary switch board which we had furnished for that purpose, and to draw in iron conduits—the cables from the generator to the switchboard. As I said Mr. Mitchell was a representative of the Samson Iron Works and was at that time working towards [92] the installation of his gas engine, was having the shaft made in the city here for installation in our generator. The gas engine was lying in the basement just setting in the basement not on its foundations. Mr. Mitchell was

(Testimony of N. P. Wilson.)

in charge of that gas engine. As to the condition of the basement of the Spalding Building at that time, as I remember it, the basement was entirely unfurnished at that time. In any event, the concrete floors were not set in.

Preparation was necessary in order to pull these cables in. The conduit had to be placed, or at least the form work for the foundations had to be put in place before we could do any work towards the coupling of the conduit, because the conduit had to be taken through the concrete foundations themselves. There was nothing but the form built at that time. The building company, I believe, provided the foundations, and they put in these forms, while we were working on our switchboard and cables, which allowed us afterwards to install our conduit in the forms, which could afterwards be grouted right in concrete.

The shaft to which I referred a few minutes ago is a steel shaft which has to be turned up to proper size for placing in the rotating element of our generator. The rotating element of the generator is called the armature. The shaft is connected directly—the gas engine shaft—by a steel coupling. The shaft that was to be used for this purpose at this time was unfinished. On July 17th, before I left the job, I inquired of Mr. Mitchell, as to when the building would be in readiness for installation, when he thought we would be able to go ahead and install our generator, as I did not wish to stay in the city any longer than necessary, and he said he didn't know, had no idea

(Testimony of N. P. Wilson.)

when the shaft would be ready. He didn't say anything about the foundations. He had nothing to do with the foundations as I understood. [93]

The Spalding Building Company was erecting the foundations there, as I understand it. It was not possible to install the generator at this time, because the shaft which the engine company was furnishing for our machine was not at the ground at the time. That made it impossible for us to erect our machine because our machine being the stationary part divided in the middle. It was necessary to mount the armature before the fields could be erected, and in order to mount the armature it was necessary to have the shaft to mount the armature on, and this was being provided by the Samson Iron Works and was not on the ground at the time. We could not install the engine of the generator without there being foundations to accommodate, but these foundations were not in at that time. The foundations had everything to do with our inability to erect the engine and the generator.

I next went on this job in the Spaulding Building on the 26th of July. I found Mr. Mitchell there. He was working with his gas engine to get it ready for installing on the foundation, and also having this shaft—I don't know whether the shafting was complete just at this time or not, but he was working on his engine, at least, getting it ready for installation. The foundation was in at this time. We erected our machine on the wooden base-plate on a heavy wooden base-plate for this purpose, which

(Testimony of N. P. Wilson.)

was to be a temporary proposition. This wooden base-plate was merely a base made out of heavy wood, on which the generator would rest to level it up on the concrete, that was the prime object of a sole-plate to first provide a bed for the generator on the concrete, and the method of bolting the generator down. The generator was not operated at this time because the Samson Iron Works had not connected up their gas piping to their engine. Of course, it was impossible to run the engine because we couldn't get gas to run it.

I remained on the job at this time until the first of August. I asked Mr. Mitchell when he thought the gas piping would be put in ready to run, and he said he didn't know. [94]

I was next on the job on the 15th of August. At that time the engine was ready to run and we made a sort of test on the machine, that is, we put the set up to full speed, brought up the generator to full voltage and found that there was a vibration to the set, which made it unsafe to operate under a load at this time. I didn't want to put any load on it. This vibration was caused by the engine shaft not being true, because of the armature running eccentric. We put up what we called a pin guage, merely fastened a pin up near the shaft rigidly, and turning the machine over two different positions to measure distance between this stationary pin and the shaft. We found that the shaft was not running true, and that brought the pin closer to the shaft, it rotated closer to the pin at one point than the other.

(Testimony of N. P. Wilson.)

It disclosed that the coupling which joined the engine shaft to the generator shaft was not turning true. We assisted Mr. Mitchell, to remove this armature with this shaft to the machine-shop, and the proprietor, I believe, of the machine-shop tested out the shaft and found that it was out of true. And the shaft was left with the machine-shop to be trued up.

Mr. Wernicke, sales representative of the Westinghouse, and I decided as long as it would be some little time to straighten up the shaft proposition that we would have a cast-iron sole-plate made here in Portland and placed under the machine at this time, so that the machine would be in a permanent condition to save any further work in this respect afterwards.

I left on the 17th of August. I was next on the job on the 25th. A new sole-plate, cast-iron sole-plate, had been installed, and the generator completely erected again, and everything as I expected was ready to operate. I installed at this time balance coils for this generator, in order that they could [95] take the voltage from the machine for furnishing lights for the building. Mr. Mitchell, Mr. Heber and myself run a test on the engine and generator to see what work we could get out of the unit. The generator was loaded up by means of a water rheostat, and while Mr. Mitchell operated the gas engine, Mr. Heber and myself operated the water rheostat, and read the switchboard instruments, which indicated the amount of load which

(Testimony of N. P. Wilson.)

the generator was delivering. The maximum load which we were able to pull on the set was *fifty* kw. output on the switchboard. The operation of the machine was—the commutation was first-class. We found that when we reached a point of fifty kw. output that it was impossible to get any higher with the load on account of the engine dropping in speed. That denoted that the engine was overloaded, it was up to its overload capacity. We could not get any higher than fifty kw. The engine laid down. Mr. Mitchell said he had about a pint of gasoline, and if anything would pull the rating of the engine, gasoline would. He used this small amount of gasoline in the engine and run it on this gasoline while I took the load, and we found it would not pull any more than it did with the gas.

Q. Was the engine permitted to die down and did he then put gasoline and run the engine on gasoline in making this gasoline test?

A. I don't remember how he applied the gasoline, but he simply told me to work the water rheostat and watch the meters while he ran the engine on the gasoline. I didn't see how he used the gasoline on the engine.

I saw him take this amount of gasoline and go over to his engine and he got all ready to use it, as he said, and he said for me to watch the load, while he applied the gasoline to the engine. I saw him go to the engine with that amount of gasoline.

Q. What was the condition of the can after the test took place? A. I could not say.

(Testimony of N. P. Wilson.)

Q. Do you know whether there was any gasoline in it after the test was made?

A. I didn't examine the can myself.

In my opinion this test showed that the fact that the engine did not pull up to its rate of output, was not due to poor gas, but [96] to the fact that the gas engine was not large enough to carry the load for which it was intended.

The serial number of this generator was 461,762.

I made an examination, inspection and test of this generator at this time. The machine was in first-class condition. Commutation as to the load which we ran it at was perfect. If the load had been increased the commutation and condition of the machine and its operation would have been the same. If there had been any defect in that generator at that time it would have been evident and apparent. The condition of the generator was good in every respect when I examined it. There was no evidence whatever of the machine having been run before or having had abuse of any kind at all. A temporary switchboard was installed on the Samson Iron Works job. It was furnished simply for two hundred fifty volts for power.

When a machine of a certain output or a certain class is first built it is built along certain specifications, which call for the size of the wire and the size of the castings all through in fact, covers the complete manufacturing data with respect to this machine, and when the first machine on this specification is built, it gets a complete set of tests from the factory be-

(Testimony of N. P. Wilson.)

fore it leaves, and after this first test is run, any succeeding machines that are building on the same specification do not receive the complete set of tests, but only such tests as are necessary for commercial work. The subsequent machines will be guaranteed for the same efficiency and other characteristics as the original machine on this specification.

Recross-examination by Mr. FRANK.

The conduits for the other two machines were put in at the same time as the conduits for the first machine were laid.

It is a part of our plan to lay this conduit before the foundation is laid. I am not sure who it was up to to run this conduit. It was my estimation, however, that the Spalding Co. building was to lay this conduit.

But you don't know anything about it?

A. I am not up on that point.

I do not know how long it took to true the shaft up in the machine-shop.

Q. Are not some of those generators built with a sole-plate in one piece? A. Yes, sir.

Q. In other words, the sole-plate is an integral part of the generator? [97] A. No, sir.

Q. Why is it not?

A. You mean a part of a generator frame itself?

Q. Well, it is built on the generator frame.

A. It is built separate.

Q. Built separate?

A. It is always built separate.

Q. You mean to say that no generator is built in

(Testimony of N. P. Wilson.)

which the sole-plate and the frame is one?

A. I never have seen any. [98]

The following correspondence was then offered in evidence by plaintiff, the defendant admitting that the letters were sent upon the date that they bear and received in due course of mail:

**Exhibit [Letter, August 3, 1910, A. M. Irwin to
Samson Iron Works].**

8—3—10.

Samson Iron Works,
Stockton, Cal.

Gentlemen:

Enclosed herewith please find our invoice of Aug. 1st., 1910, #8137, in the amount of \$1500.00, covering partial shipment on contract of May 25th, 1910. Payment in full became due, according to our terms, on July 15th, 1910. A prompt remittance in line with such terms will be very much appreciated.

Very truly yours,

A. M. IRWIN,
Asst. to Treasurer.

**Exhibit [Letter, August 4, 1910, Samson Iron Works
to Westinghouse E. & Mfg. Co.].**

Stockton, Cal., Aug. 4, 1910.

Westinghouse Electric and Mfg. Co.,
#165 Second St.,
San Francisco, Cal.

Gentlemen: Attention Mr. Irwin.

Your invoice August 1st, 1910, #8137, in the amount \$1,500.00, covering partial shipment of contract of May 25th, 1910, payment in full becoming

due according to the terms of contract on July 15th or immediately upon installation and acceptance, is receiving our attention.

This contract which while assumed in its entirety by Samson Iron Works is in *reality* a joint contract between your good selves and this Company and at the time we entered into the agreement with you for your end of the work, the writer of this letter having had a good deal of experience in the uncertainties of finishing a job on time, had it expressly understood with your Messrs. Bean & Wernicke that we were to pay you immediately we received payment from Colonel Spalding but as they felt that your Company would desire a more definite date of payment, it was decided between us that the work should be accomplished without doubt by July 15th, hence this date of payment was inserted. Three or four days ago we received a letter from our Installing Engineer in which he said that his work was complete and that he could not do anything further because the electricians had not finished their end and this we presume to be your Company. Yesterday we received another letter from him which we understand that the work is now complete and that they propose to run the first plant for 24 hours but cannot use it any further for [99] a month or two as the building will not be complete.

This would make it appear that both you and we are going to be delayed somewhat in our work, yet as we have already shipped the second engine and presume that you people have shipped the second generator, the second unit should be installed very

shortly and we have no doubt but that Col. Spalding will allow testing out of each plant as it is completed so that the payments should not be delayed much beyond the expected time.

We have written to our agents in Portland and asked them to exert every effort on our behalf to obtain a prompt remittance from Col. Spalding and would suggest that you write and ask your Mr. Wernicke to co-operate with them in seeing that your end of the contract is complete in all its details and obtain acceptance therefor.

We feel that it is just as well to write at this time explaining the reason you did not receive your money July 15th so that the harmonious relations existing between the two Companies will not be marred by some misunderstanding.

Yours very truly,
SAMSON IRON WORKS.

By S. H. HEAD.

**Exhibit [Letter, August 8, 1910, A. M. Irwin to
Samson Iron Works].**

8—8—10.

Samson Iron Works,

Stockton, Cal.

Gentlemen:

Att.: Mr. S. H. Head.

Yours of the 4th inst. received, relative to our invoice #8137, in the amount \$1,500.00, covering partial shipment on contract of May 25th, 1910, and in reply would state, that the contract is, as you advise, assumed in its entirety by the Samson Iron Works, but it is not, as you advise, a joint contract, and

should not, or cannot be considered as such. We have no contract whatsoever with the Spalding People, but our contract is direct with you.

Regarding the payment, we wish to quote from the terms:—

“This first unit has to be in operation by July 1st., 1910, and it is agreed and understood that payment in the amount of \$1500.00 will be made on the total contract price, immediately upon installation and acceptance, which payment will not be made later than July 15th, 1910.”

You will note payment was to be made not later than July 15th, 1910, and not as you state on July 15th, or immediately upon installation and acceptance.

Installation, you advise in your letter, has been completed, and we would therefore respectfully request the payment be sent us in line with terms, inasmuch as due date has been exceeded approximately three weeks.

Very truly yours,

A. M. IRWIN,

Ass't. to Treasurer. [100]

Exhibit [Letter, August 9, 1910, Samson Iron Works to Westinghouse E. & Mfg. Co.].

Stockton, Cal., Aug. 9, 1910.

Westinghouse Electric & Mfg. Co.,

#165 Second St.,

San Francisco, Cal.

Attention, CET.

Gentlemen:

There never was an agreement between two parties

wherein one party, having absolute confidence in the other party, gave them a contract to do certain work with which the first party was perfectly unfamiliar, without there was a certain amount of give and take. When your Mr. Wernicke wrote out the specifications for the Electrical part of this contract, the writer said that it was no use him going over the specifications inasmuch as he had not any idea of what would be required, except in a general kind of way, and that it was up to your people to give Col. Spalding a good job and supply everything that would be required. This Mr. Wernicke assured the writer was in the specifications and the writer believed him. When it came down to the business part of the contract the writer acknowledges that he knew a whole lot more about it than he did about the electrical end of it, and he objected to the insertion of that specified time in the contract but Mr. Wernicke pointed out that payment would fall due immediately upon installation and acceptance, and that it was simply a matter of form for your home office and so that they could base some definite approximate time of payment, that this date was inserted. The writer having had quite a great many business dealings with the Westinghouse in the past and having an exceedingly high regard for all of the old men in the San Francisco office and knowing that in the past it had always been the policy of the Westinghouse Company to meet the other fellow more than half way, felt that in spite of his business judgment, he was safe in signing the agreement as it stood, in behalf of his Company, and he still feels that

as it can only be a matter of a few days before the plant will be accepted by Col. Spalding, that you will still await the clause, "Immediately upon installation and acceptance."

At the same time the writer wants you to thoroughly understand that Samson Iron Works does not and has no need to plead poverty. They are amply able to meet this account but feel that in view of the thorough verbal understandings which we had at the time with your Mr. Wernicke and of the talk which we had with your Mr. Bean, that although it is perfectly true as you say that the electrical end of this contract is not a joint contract and cannot be considered as such, that you people should not attempt to insist upon payment from us until we have had an opportunity to find out whether or not your end of the work is satisfactorily concluded.

Yours very truly,

SAMSON IRON WORKS.

By S. H. HEAD.

**Exhibit [Letter, August 24, 1910, A. M. Irwin to
Samson Iron Works].**

8-24-10.

Samson Iron Works,
Stockton, Cal. [101]

Gentlemen:

Att: S. H. Head.

Referring to your letter of Aug. 15th, regarding first generator furnished on contract of May 26th, 1910, would state that we have just been advised by our Mr. Wernicke that the trouble your representative referred to was not due to any fault of our ap-

paratus, but was in reality in the couplings and shafts furnished by the Samson Iron Works. Mr. Wernicke states that this was conclusively proven to your representative and that he has written you a letter which will place the matter before you clearly.

We again ask that inasmuch as our end of the contract has been complied with to date, you arrange to favor us with the \$1500.00 due.

Please favor us or advise if there is now any reason for withholding the same.

Very truly yours,

A. M. IRWIN,

Ass't. to Treasurer.

Exhibit [Letter, August 25, 1910, Samson Iron Works to Westinghouse E. & Mfg. Co.].

Stockton, Cal., Aug. 25, 1910.

Westinghouse Electric & Mfg. Co.,

#165 Second St.,

San Francisco, Cal.

Gentlemen:

Attention Mr. Irwin.

Your letter to hand and contents noted, and in reply would state that your contract called for a delivery complete of your 75 K. W. Generator to be in operation by July 1st., 1910, "And it is agreed and understood that payment in the amount of \$1500.00 will be made on the total contract price immediately upon installation and acceptance which payment will not be made later than July 15th, 1910." Despite whatever assurance your Mr. Wernicke may have made you, we beg to state that we have not at this date received a single Generator from the Westing-

house Company complete. On August 19th, the Sole Plates, evidently some necessary part of the machine, were only being made. On August 15th, it was discovered that the Westinghouse Electric & Mfg. Co. erected only part of the Generator, for on this date, whilst you were asserting that your Generator was complete, it was short some coil making it impossible to run it under any conditions.

In short about the only terms of your contract which appeal to you is that we should make payment to you of \$1500.00 on July 15th.

Providing you fulfilled certain conditions which were that you should have your Generator installed for our acceptance on July 1st., then we should pay you \$1500.00 immediately upon installation and acceptance which payment will not be made later than July 15th. Another provision in the contract you agree to have both the other units in Portland in 90 days from May 25th. We haven't so much as heard these Generators have been shipped from Pittsburg, a direct violation of your contract with us.

It is true that the coupling between the Generator and the engine was 4/1000" out of true, an accident liable to occur in the very best regulated factories and one which [102] could have been remedied within a couple of days had we been able to find out whether your Generator would successfully operate or not; therefore, it is impossible for you to think that we delayed your work in any way.

We beg to notify you that we have not and will not under any circumstances accept your Generator nor any other part of your machinery until you have

conclusively proven to us that you have done the work specified in your contract with us which is that you are to supply a Generator together with all necessary electrical equipment to deliver 75 K. W.'s in one instance and 100 K. W.'s in another instance to a switchboard when direct connected to our engine and we further notify you that inasmuch as you have violated your contract with us, the same is void and of no effect.

It is not pleasant to be forced to write a letter of this kind to your Company and we would suggest that instead of attempting to collect money from us which is not due and in no sense belongs to you, that you get busy and do the very best you can toward rectifying the broken promises you made to us in your contract of May 25th.

Yours very truly,

SAMSON IRON WORKS.

By S. H. HEAD. [103]

[Testimony of B. C. Ball, for Plaintiff.]

B. C. BALL, called as a witness for plaintiff, testified:

My name is B. C. Ball. I reside at Portland. I am a mechanical engineer and have been for about twenty-five years. I have known Samson Iron Works since about two years. I was employed by the Samson Iron Works to test a gas engine. It was located in the basement of the Spaulding Building. There was an electrical generator attached to the gas engine. The circumstances under which I was called upon to test the gas engine were as follows:

The first connection I had with the engine was

(Testimony of B. C. Ball.)

when Mr. Mitchell came down to my office to see about having a special pulley made to be used in connection with the brake to determine the horse-power developed by the engine. Some few days after that, Mr. Mitchell asked me if I would make a test of the engine to determine the maximum horse-power. I finally consented to make this test; and he secured, in addition, to other men who acted as witnesses to the test. They were mechanics bearing good reputations in Portland, by the name of Helser and Undine. I made a test of the engine in the presence of Mr. Mitchell, Mr. Helser and Mr. Undine, who all corroborated the measurements and observations, and after the test I figured up the results and reported them in a letter to the Samson Iron Works. The maximum horse-power developed by the engine was about 78 horse-power.

My technical education was obtained at the Stevens Institution of Technology, Hoboken. I have a degree of Mechanical Engineer.

Mr. Mitchell made some remark about the capacity of the engine and stated that he knew the engine could not develop the amount of power required.
[104]

The method of testing used is called Prony brake test. It is recognized as being a very satisfactory and extremely accurate test. It is mentioned by text writers.

A demand was made upon defendant to produce the original letter written by Mr. Ball to defendant. It was not produced. Mr. Ball thereupon identified

a carbon copy thereof and it was offered and admitted in evidence and was as follows:

**Exhibit [Letter, September 10, 1910, B. C. Ball to
Samson Iron Works].**

Sept. 10, 1910.

Samson Iron Works,
Stockton, Calif.

Gentlemen:

At the request of your Mr. Mitchell, I made a brake test of your engine in the Spaulding Building yesterday, the results of which are given below:

Length of beam from center of shaft to point of contact with scales 9 ft. 8".

Weight of beam carried by scales with everything slack and engine not running 60#.

(In order to get this weight accurately, the beam was lifted from the wheel and laid across the face of the wheel, which acted as a knife edge.)

Gross weight with engine pulling maximum 232#.

Net weight 172#.

Speed 245 revolutions.

From the above figures, you will see that the engine developed only 78.5 H. P. In order to be sure that the engine was not being controlled by the governor, Mr. Mitchell screwed the governor stem back, so that the governor was not controlling the speed. The brake was screwed down to give as near 250 revolutions as possible and I am convinced that the engine cannot develop more than 80 H. P. with the gas of the richness supplied by the Portland Gas and Coke Company. Just what the heat value of

this gas was at the time of the test, I am not able to state, as no test was made of it.

Enclosed I am sending bill for services in connection with the testing of this engine.

Hoping that the results of this test will be of some use to you, I am,

Yours very truly,

B. C. BALL.

Mr. Ball identified the reply of defendant to said letter. It was offered and admitted in evidence and was as follows: [105]

Exhibit [Letter, September 12, 1910, Samson Iron Works to W. M. Ball].

Stockton, Cal., Sept. 12, 1910.

Mr. W. M. Ball,

c/o Williamette Iron Works,

Portland, Ore.

Dear Mr. Ball:

Your report of the Test of the engine, to hand. We had already received a telegram from Mr. Mitchell from which we understand that he found it impossible to keep up a sufficiently steady pressure on the Gas Mains to obtain 250 revolutions per minute. Do you not think that it is also possible that the strength of the gas was low on the day on which you made the test? It looks very much to us as though it would be impossible for an engine to run off City Gas which is variable both in pressure, richness, and B. T. U.'s unless one had an engine very largely in excess of its actual rated capacity, and

should be glad to hear from you what you think about it.

Yours very truly,
SAMSON IRON WORKS.

By S. H. HEAD.

Cross-examination.

The amount of power varies to a certain extent with the perfection or imperfection of the fuel. I made no test of the fuel that was used at the time. I have no knowledge about the gas whatever that was used. I know nothing about the engine except under the conditions of operation as they existed at that time. Mr. Mitchell was in charge of the operation and he was to give the engine as much power as he could generate when I tested it. I would not want to be understood as condemning the engine generally, but only that under the test that was made at that time, she could not give the generator its full power. That is only a theoretical conclusion of mine. I made no attempt to generate the current. Mr. Mitchell at that time said to me that he could not develop the power with that gas. [106]

[Testimony of E. R. Rhodes, for Plaintiff.]

E. R. RHODES, called as a witness in behalf of plaintiff, testified as follows:

I have been in the electrical business for ten or twelve years. If a machine built according to certain electrical specifications had been tested for temperature and found, as far as the temperature requirements were concerned, to be well within the contract specifications, that fact establishes the efficiency of that particular machine.

(Testimony of E. R. Rhodes.)

The contract in suit—exhibit 1 for plaintiff—specifies:

1—75 KW. compound wound direct current
E. T. 3-wire generator 250–125 volts 275
RPM. complete with all three wire parts
and field rheostat,

and

1—100 KW. compound wound direct current
E. T. 3-wire generator 250–125 volts 250
RPM. complete with all three wire parts
and field rheostat.

I had to do with the preparation of these generators for shipment. They were completed but not shipped. We were ready to ship them when word was received by the plaintiff that defendant had repudiated this contract—exhibit 1—with plaintiff. The switchboard mentioned in this contract was also completed and ready for shipment. It was, however, dismantled, part turned in to stock and part scrapped because of the repudiation of the contract by defendant. I made an effort to sell it without dismantling. I looked specially into the possibility of applying it to an order on hand, but I could not find sale for it. The loss was \$263.82.

In connection with the two generators which I have just mentioned, the bed-plates could not be used in disposing of them and were a complete loss. They amounted to \$40 and \$50, respectively.

The second and third generators called for by the contract—exhibit 1 for plaintiff—were resold for \$2,477.67. Their [107] market value at Pitts-

(Testimony of E. R. Rhodes.)

burgh in September, 1910, was \$2,663.50; in Portland, Oregon, \$2,827.10. The freight charges upon these generators between Pittsburgh and Portland would have been \$305.60 at that time.

Plaintiff purchased and paid for, in the performance of that said contract, the following cable at the following prices:

525 ft. 500,000 C M Cable	\$216.58
105 ft. 750,000 C M Cable	61.53
310 ft. No. 2 Cable	21.56
80 ft. No. 6 Cable	3.01

making total of.....\$303.68

This was purchased July 23, 1910, from the Industrial Engineering Co., 71 Fifth St., Portland, Oregon, to fulfill the requirements of the contract. The prices just mentioned were the generally prevailing prices of cable of the class specified on the date mentioned. The cable was billed to defendant at \$330.50, which was a reasonable and fair billing price in line with general custom.

The two generators which I have mentioned were built for this contract. Upon receipt of a telegram from our Portland office I instructed the shipper not to ship anything at all until further advice. [108]

[Testimony of C. Streamer, for Plaintiff.]

C. STREAMER, called as a witness in behalf of plaintiff, testified as follows:

I am employed in the switchboard division of plaintiff. Switchboard units are not standard material held in stock by the plaintiff.

(Testimony of C. Streamer.)

The freight on the switchboard called for by the contract—exhibit 1 for plaintiff—from Pittsburg to Portland would have been \$100.80. [109]

[Testimony of W. H. Haggerty, for Plaintiff.]

W. H. HAGGERTY, called as a witness in behalf of plaintiff, testified as follows:

I am in charge of the switchboard division of the estimating and cost department of plaintiff. The switchboard mentioned in the contract—exhibit 1—was built expressly for the Samson Iron Works. Its cost was \$1,531.65, comprising parts costing \$1,330.40 and labor costing \$201.25. [110]

[Testimony of Percy E. Davidson, for Plaintiff.]

PERCY E. DAVIDSON, called as a witness in behalf of plaintiff, testified as follows:

Practically all my life I have been an electrical engineer. I was employed by the Westinghouse Electric & Manufacturing Company on April 12, 1907. I was a tester of generators and other electrical apparatus. I had charge of the testing of the certain 75 KW generator, serial No. 461,762, which is scheduled in contract marked "Exhibit 1," for plaintiff. Test sheet marked "Exhibit 2" is a true and correct record of the test; my name is appended to said test sheet. This test sheet shows that the 75 KW. generator operated for four hours at full load, which is long enough to insure its temperature becoming practically constant, and for this particular type of machine is a reasonable time to determine whether the heating had reached a maximum, and whether the power rating could be determined

(Testimony of Percy E. Davidson.)

within the contract requirements. The test sheet shows that the actual temperature is well within the test guarantee of contract and fully satisfied the terms of the test guarantee as specified in the contract. [111]

[Testimony of J. E. Logan, for Plaintiff.]

J. E. LOGAN, called as a witness in behalf of plaintiff, testified as follows:

I have been in the employ of plaintiff since May 16, 1899. I am in the switchboard department. The contract in suit—exhibit 1, for plaintiff—refers to a switchboard consisting of three generator panels and one load panel. This switchboard was built complete and was ready for shipment by plaintiff from its factory in Pittsburgh but was not shipped but was dismantled and certain parts were turned in to stock and certain parts scrapped. Switchboard units are not standard material held in stock by plaintiff.

The cost of this switchboard was \$1,531.65. The materials therein which were turned into stock and used again after dismantling the switchboard were of the value of \$1,253.80. The value of the material scrapped was \$14.03, making a total of \$1,267.83. By scrapping material I mean that the material was of no use to us—material that could not be used again. [112]

[Testimony of David Hall, for Plaintiff.]

DAVID HALL, called as a witness for the plaintiff, testified:

My name is David Hall. I am a designing electrical engineer and have been employed with the plaintiff company nearly five years. I have been employed as a designing electrical engineer about fourteen years.

Plaintiff's exhibit 2 is an original test sheet of machine #461,762 built according to electrical specifications #52,739. It shows a full load temperature test.

I would say that the first unit mentioned in the contract—Plaintiff's Exhibit 1—the machine in suit, was better than the contract guarantees as to both efficiency and temperature. [113]

[Testimony of F. W. Winn, for Plaintiff.]

F. W. WINN, called as a witness for plaintiff, testified:

I act as superintendent for all the buildings owned by Colonel Spalding in Portland, Oregon, with the exception of the Portland Hotel, including the Spalding Building. The Samson Iron Works during the months of July, August and September, 1910, installed two gas engines, tested one, and removed both of them.

A Prony brake test of the gas engine by defendant was made there. The result of this test did not prove satisfactory and the engines were removed.

There were some of the tenants had moved into the building the latter part of August and we needed

(Testimony of F. W. Winn.)

power to run the elevators and to furnish light. The power that was necessary was the power sufficient to develop 75 kilowatts, which was the rated power of the generator.

The sole cause of directing the Samson Iron Works to remove their machines from the building was the failure of the engine to develop the horsepower required. The failure of the Samson Iron Works to have the second or third units, or either of them, installed in the building at that time was not to my knowledge the reason for this action.

[114]

[Testimony of Andrew Murray Hunt, for Plaintiff.]

ANDREW MURRAY HUNT, called as a witness for the plaintiff, was sworn and testified as follows:

Mr. LEVY.—The witness' competency is stipulated.

Mr. FRANK.—Yes.

Mr. LEVY.—Q. According to proper practice and standard engineering methods, what is the usual manner of erecting and installing a unit consisting of a gas engine and a 75 kilowatt engine-type generator, with particular reference to the sequence in which the various parts are installed?

A. Assuming that the gas engine and engine-type generator are the usual type of a three-bearing machine, or the generator carried by a single outboard bearing, the first step would be the preparation of an adequate foundation for carrying the unit in its entirety; secondly, the mounting upon the foundation of the engine and the base which was to carry

(Testimony of Andrew Murray Hunt.)

the generator, mounting upon this base the outboard bearing, lining that up with the engine bearing; the placing of the engine part—if the generator were a horizontal split machine, the placing of the lower half of the field in position, then placing the shaft carrying the armature in its position, and then the upper half of the generator. If the generator field were split vertically, the armature and its shaft would be mounted in place and then the two halves of the generator field placed in position and slid together so as to surround the armature, and bolted together.

Q. If it developed that in such an installation, the gas engine company failed to furnish a bed-plate for the generator, how would your answer to that question be affected?

The COURT.—Q. A proper bed-plate for a generator is an essential feature of the construction, is it not? I am not speaking now as to who is to furnish it. [115]

A. It may or may not be, your Honor.

Q. How do you mean?

A. In very large machines, frequently the generator is mounted without an extended base. In small and moderate-size units, it is almost the universal practice—

Q. (Intg.) Well, take a 75 kilowatt unit then; let us deal with concrete matters, and not with abstractions; take a 75 kilowatt installation.

A. The general practice is to employ an extended bed-plate on which the generator is mounted. In

(Testimony of Andrew Murray Hunt.)

my experience, based upon a rather extended knowledge of the business, it is furnished in a vast majority of cases by the engine builder.

Q. Is a bed-plate any part of the generator?

A. It is not.

Q. In a contract between an engine company and an electric company, in which the electric company agrees to erect, furnish and install a 75 kilowatt engine-type generator on the foundations of a certain building, together with a switchboard, and cable for connections, state in detail what, according to standard engineering practice such a generator comprises?

A. Where no special stipulations are made which govern and control, common practice would indicate that there should be furnished the field frame, all the field frame armature and all the attachments which form a part of the generator, or in connection with its electrical operation.

Mr. LEVY.—Q. Is the shaft upon which you state the armature is pressed, any part of the generator, proper?

A. It is not so considered and is usually not furnished with the generator.

Mr. LEVY.—Q. Assume that we have the ordinary engine, an engine of ordinary efficiency, what rating should such an [116] engine have to deliver 75 kilowatts as the result of the operation of the unit?

A. Approximately 110 brake horse-power.

Q. If the generator is kept in a corrugated iron

(Testimony of Andrew Murray Hunt.)

building, having a concrete foundation and floor, with windows and a single door, closed to keep out the moisture, and being subjected to no undue heat, would it suffer any material deterioration?

A. I do not see how it could.

Q. Take, for example, the period of three years, what would be your answer?

A. I do not believe that material injury would occur. I do not believe that a temperature of 100 to 130 degrees Fahrenheit would produce any injury, whatever. And as far as moisture is concerned, unless moisture were present in sufficient quantity to cause condensation upon the metal surfaces of the machine, I do not see how injury could occur. Injury due to moisture would probably be apparent to visual inspection; if the result would show in rust formation upon the bright steel or iron surfaces, or that even that rusting might take place without deterioration to any of the vital parts. As far as injury arising from elevated temperatures is concerned, it would not be evident probably upon visual inspection, unless the temperature had been very high. Such deterioration due to the elevation of temperature not sufficient to produce blistering of paint could probably only be detected by operating the machine, or by electrical test.

Q. If a generator is operated without apparent difficulty, and carries a load of approximately 50 or 52 kilowatts, and its commutation is first-class, what would that indicate as to its condition generally, and as to any deterioration?

(Testimony of Andrew Murray Hunt.)

A. That its condition was good, and that no material deterioration had taken place. [117]

Cross-examination.

The amount of power delivered from an engine depends upon the nature of the fuel that is used, and it varies according to how the heat units in that fuel vary. With a sufficiently high fuel, it will exceed its rate capacity, if it is rated on a lower-grade fuel. So what is rated as a 100 horse-power engine might, with proper fuel, deliver 110 or 114 horse-power.

Q. With reference to the sole-plate or bed-plate that you were speaking of, generators and engines, with their connections, are made in all sorts of ways, are they not; sometimes an engine is made with an extended bed-plate, which will carry the generator, and sometimes it is not; is not that correct?

A. It is so done, but there is an established practice and custom.

Q. What do you mean by established practice and custom?

A. There is an established practice and custom which dates back to the year 1901, when a committee was appointed by the American Society of Mechanical Engineers to go into the matter of harmonizing and standardizing the construction of electrical generators and gas engines. The matter was thoroughly gone into before the committee, and the committee submitted a report. Their report has been generally followed by engine builders throughout the country. It was done to crystallize the practice

(Testimony of Andrew Murray Hunt.)

at that time, because just shortly before that the use of direct connected generators had come into vogue, and there was a considerable amount of misunderstanding frequently arising under contracts, and it was an attempt to harmonize those conditions and to establish something which could be used as a standard that this matter was taken up by the American Society of Mechanical Engineers.

Q. But that is not a matter that the people generally who deal in these things have knowledge of; that is a matter for engineers [118] of your type, consulting engineers?

A. No, sir, it is not; it is a matter which is of common knowledge to engine builders. Engine builders were upon the committee, and full and complete conference and correspondence were had with the engine builders before this report was framed. Notwithstanding that these units are built as I say very frequently sometimes with a single bed-plate and sometimes with an independent bed-plate for the generator, there is no limitation, both types of construction are adopted.

Redirect Examination.

I would say that I have never seen a generator of 100 kilowatt or smaller directly connected to an engine mounted except upon an extended bed-plate, with but one exception; that was an engine in which what is known as the cross-compound type was used, consisting of one cylinder upon one side, with another upon the other, with a generator mounted in the center between. [119]

[Testimony of Carl L. Wernicke, for Plaintiff.]

CARL L. WERNICKE, called as a witness for the plaintiff, testified:

I mailed this contract to Pittsburgh from Portland, Oregon. The first generator was shipped from San Francisco here on June 11, 1910, and allowing three days for transit by steamer and one day for getting it into the basement of the building, it was probably there by June 15th, 1910. The field frame was vertically split. We kept continually in touch with the erection as it went along and had Mr. Wilson on the ground when it was time for him to erect the generator.

The COURT.—Q. What was that time? That is what we want to get at. Of course, your conclusion that it was within time, is not evidence. It is for the jury to determine whether it was within time. What was the time that you had him there?

A. I do not remember the first time that Mr. Wilson came to Portland, I think though it was in the early part of July, however.

The reasonable and the market value, approximately, of the first generator in Portland, in the year 1910, was \$1,300.

The first intimation that I got that an extended bed-plate was not going to be furnished by defendant with the gas engine was when I saw the blueprints of the gas engine which did not show any extended base on which to mount the generator. I took the matter up with the Samson Iron Works and called their attention to the fact that no extended

(Testimony of Carl L. Wernicke.)

base for the gas engine had been provided and that it would be necessary to have form of [120] bed-plate on which to mount the generator, and I suggested that they order these additional bed-plates from us, as we could furnish them. At the same time I also took the matter up with our factory and requested them to add these bed-plates to the order.

Owing to the fact that the bed-plates for the first 75 kilowatt units could not be shipped prior ot the time that the second 75 kilowatt machine and the 100 kilowatt machine were shipped from the works it became necessary to take care of the first units by a temporary bed-plate which consisted of wooden blocks; the desire was to have the wooden blocks the same height [121] as the standard bed-plate would be, but to mount to generator on the wooden blocks temporarily until the bed-plate got back to Portland. That was done.

I have forgotten the exact date just now, when the cast iron bed-plate was delivered to the job there, but it was just a day or two after the testimony shows that the shaft was taken out to be trued up.

I had a conversation with Mr. S. H. Head, the manager of the Samson Iron Works, on or about the 1st or 2d of September, 1910.

After the various tests had been made which have been testified to before, and it was finally found out that they could not get the first unit to operate satisfactorily, Mr. Head advised me that Colonel Spalding had told them that it would be necessary for

(Testimony of Carl L. Wernicke.)

them to take all of the apparatus out of the basement of the Spalding Building as they had lost their contract. At the time, which was on the morning of September 2, 1910, the situation, as I recall it, was that the Samson Iron Works had been told to take their apparatus out; Mr. Head and I were talking over the matter unofficially and I was asked what sort of an arrangement our company would make to let the Samson Iron Works out of their contract with us, and unofficially I replied that we would probably make every allowance we could and list those machines which were still at the factory on the stock sheet and endeavor to dispose of them for them, and also help them get rid of the generator which was in Portland, but that we probably would not accept cancellation of the contract.

The reasonable cost of installation of the second and the third generators and the permanent switch-board there at Portland would have been approximately \$400. [122]

The witness identified the following letter, which was admitted in evidence:

**Exhibit [Letter, Westinghouse E. & Mfg. Co. to
Samson Iron Works].**

Samson Iron Works,
Stockton, Calif.

Attention Mr. S. H. Head, Sales Mgr.

Please refer to our contract with you covering generators and switch board for the Spaulding Building of this city and note that at the time you placed this order with us there was no mention made

of the fact that bed plates would be required with these generators, it being understood that you were to take care of the proper foundations upon which to place these generators. In other words, it was more or less the intention at that time, for you to have a solid bed plate under both the gas engine and the generator, which would give it a firm foundation.

As we understand the matter now, judging from the present engine which is now installed in the building, you have furnished only a bed plate for the engine and none to go under the generator. It therefore became necessary for us to furnish bed plates for these generators, and on consultation with Mr. S. H. Corbett of the Industrial Engineering Co. the writer advised the factory to supply the necessary bed plates for all of these generators.

These bed plates will come to a total of \$105.00 or approximately \$35.00 each, and we would ask that you kindly give us your authority to bill you in this additional amount. It will not be necessary to modify our present contract by a supplemental proposal including these bed plates, but simply your advice to the effect that we should furnish these bed plates will be sufficient and they will be billed to you separately from the balance of the contract covering the apparatus.

Trusting we will receive this authority from you shortly, we are,

Yours very truly,

WESTINGHOUSE ELECTRIC & MFG.
CO.

(Testimony of Carl L. Wernicke.)

Cross-examination.

Q. I call your attention to this portion of your letter which was just read to the jury by Mr. Levy:

It will not be necessary to modify our present contract by a supplemental proposal including these [123] bed-plates will be sufficient, and they will be billed to you separately from the balance of the contract covering the apparatus.

Trusting we will receive this authority from you shortly, *we, yours* very truly, etc.

Why did you make that suggestion if at that time you considered it was their duty to furnish the bed-plates?

A. Because there were no bed-plates included in our contract.

Q. You did not consider there were any bed-plates included in that contract, and you wanted your authorization to charge them with them extra?

A. Yes, sir.

Q. And you suggested it would not be necessary to modify the contract?

A. We would handle it that way in order to avoid the necessity of a supplemental proposal. In reply to that letter I received the following letter:

**Exhibit [Letter, August 9, 1910, Samson Iron Works
to Westinghouse E. & Mfg. Co.].**

Aug. 9, 1910.

T SHH

Westinghouse Electric & Mfg. Co.,
Couch Bldg., Portland, Ore.
Attention R 20747.

Gentlemen:

Thus far the writer can hardly say that he is tickled to death with the manner in which your Company has treated us on the Spalding Contract. In the first place, the writer told you that he didn't know anything about the electrical end of this proposition and that it was up to you people to furnish it all. He is confident that it was you, yourself, who suggested that there was no need for bed-plates under the engine and we didn't contemplate using any. The writer also asked you what we had to furnish and the only thing which you told him was necessary for us to furnish would be the Armature shaft. Now for the life of him, he cannot see why your company should want us to buy some bed-plates at an approximation of \$35.00 each to be put underneath your generators. This company did not start to hunt up somebody when we found it was necessary to purchase a gas regulator, owing to the uncertain pressure of the city gas, at a cost of \$180.00 to us which we certainly didn't figure on.

In all contracts of this kind there is a certain amount of give and take and there were many little things which became necessary that we should fur-

nish which the writer did not figure on but he certainly expected his own company to furnish these little parts, and it rather surprises him that a company of the size of the Westinghouse Electric & Mfg. Co. should come to us and ask us to supply some bed-plates which they find necessary to put underneath [124] their generators to install them properly.

Another thing is that before the writer signed the agreement with you, giving you the entire electric end of the business, he was quite exercised about a clause which you inserted in the contract, specifying that your end of the plant was to be paid for by us upon installation and acceptance not later than July 15th. However, he relied upon your word and what he had previously known of the Westinghouse Company, and signed it, because as you yourself said, the payment was due upon installation and acceptance.

We are creditably informed that it is only within last very few days that your people have completed their end of the work and yet without our ever having an opportunity to test out the correctness of your installation, your company is, to say the least of it, insistent that we make payments according to the literal wording of the contract.

It is a long while since the writer signed a contract with anybody agreeing to pay for it at a certain specified time whether the other fellow delivered the goods or not and was very much against his judgment, and he is now wondering whether he treated his own company right in not accepting the figures of one your competitors which were less than yours and on terms which would have been made absolutely satisfactory to his company. Although Samson

Iron Works are not as large a concern as the Westinghouse Electric & Mfg. Co., they are a concern with a very high reputation and are amply able at all times to meet any obligation which matures, and it is to be greatly regretted that your company should propose to take the stand it is taking in view of the fact that we are doing a large business not only in California, Oregon and Washington, but in every part of the Pacific Coast, and might be quite considerable purchasers of your machinery for electric lighting works especially.

Awaiting your immediate reply, we are,

Yours very truly,

SAMSON IRON WORKS.

By _____.

I have testified to a conversation which I had with Mr. Head on September 2d.

Q. How do you fix September 2d as the date of the conversation? A. By the following wire:

Exhibit [Telegram, September 2, 1910, Carl L. Werneckie to E. P. Dillon].

Postal 86.

Portland, Ore., Sept. 2, 1910.

E. P. Dillon,

Samson Iron Works D. C.

13000

864.

Hold all shipments. Will write full particulars.

CARL L. WERNECKIE.

That is the only communication I had with the Pittsburgh Company until I wrote the same day. I remember receiving a [125] letter from some attorneys in Portland on the subject. The letter is as follows:

Exhibit [Letter, September 6, 1910, Samson Iron Works to Westinghouse M. & E. Co.].

September 6th, 1910.

Westinghouse Manufacturing and Electric Com-
pany,
Couch Building,
Portland, Oregon.

Gentlemen:

You are hereby notified that the Spalding Com-
pany has refused to accept the power plant being
installed in the spalding Building by us. We had a
contract with you to furnish generators to us which
would develop a certain given capacity and a certain
efficiency. The first generator furnished by you was
not sufficient in any way and, on account of the delay
in furnishing the generators by you and the insuffi-
ciency of the first generator, we have lost the con-
tract of installing the plant in the Spalding Build-
ing, all of which we consider to be due to the failure
on the part of your company to carry out its con-
tract, and this is to notify you that we shall hold you
responsible for all loss and damage to us on account
of the loss of this contract.

Yours very truly,
SAMSON IRON WORKS.
S. H. HEAD.

Stamped:

Received
Sept. 7, 1910.
Westinghouse
Portland [126]

Plaintiff here rested its case.

[Testimony of J. M. Kroyer, for Defendant.]

J. M. KROYER, called as a witness on behalf of defendant, testified:

Q. What number of B.T.U's of gas is necessary to develop 100 horse-power in a 100 horse-power gas engine?

Plaintiff objected to the question as not material for the reason that it made no difference how many B. T. U's it took to develop 100 horse-power. The quality of the gas played no part in the controversy and the only question was whether defendant gave plaintiff horse-power enough to drive the generator. The character or quality of the fuel procured for the gas engine was not relevant to the issue.

The objection was overruled and an exception noted for the plaintiff.

Exception No. 1.

(Witness answered:) A. Not less than 650 B. T. U.'s would develop in that engine the 100 horse-power. Ordinary illuminating gas is said to contain from 675 to 810, but to be conservative we base our calculations upon it being 650.

Q. In your business you do a great deal of freighting, do you, from the east, from the vicinity of Pittsburgh and other points equally distant?

A. Yes, sir.

Q. Can you state how long it would take in 1910 to freight an apparatus such as a generator from Pittsburgh to Portland?

Plaintiff objected to the question as incompetent and immaterial under the terms of the contract

(Testimony of J. M. Kroyer.)

which required plaintiff to deliver two subsequent generators not at Portland but for shipment at the factory. The Court overruled the objection, to which ruling plaintiff noted an exception.

Exception No. 2.

(The witness answered:) A. We figured at that time that 21 [127] days for freight to come from East Pittsburgh or Philadelphia; now we get a little better delivery, about 18 days we figure now.

Q. State what the detail is of the damages and losses by reason, as we claim, of the failure of these parties to carry out their contract.

Plaintiff objected to the question upon the ground that there was no proper foundation laid, and also upon the ground, as the record showed, that demand for a bill of items of defendant's cause of action by way of counterclaim was made a month prior and the bill of items was received one day before the trial and four days before the time upon which this proceeding took place.

It appeared that when the demand for a bill of items of the counterclaim was made by the plaintiff on the defendant, the case had been pending for a couple of years; that the plaintiff had been served with a bill of particulars, amended bill of particulars, and then again with another amended bill of particulars. Finally plaintiff served defendant with a notice to produce a bill of particulars. Counsel for defendant sought for the papers, which had been in his possession but could not find them. He did not know what had happened to them,

(Testimony of J. M. Kroyer.)

until finally it occurred to him to telephone to Stockton. It thereupon appeared that defendant had taken the papers away months before. As soon as counsel could obtain the papers, the bill of particulars was delivered to plaintiff. A cross-complaint had been filed two years before the first application by the plaintiff for a bill of particulars. Said application was made just a month before the trial.

The Court overruled the objection, to which ruling plaintiff noted an exception.

Exception No. 3.

(The witness answered:) [128]

To freight on engine and parts shipped June 23d	\$ 58.23	
To freight on engine shipped Aug. 1st.	72.40	
Freight on return of machinery from Portland to Stockton...	95.35	
Crating and cartage of engine at Stockton	60.00	
		<hr/>
		\$258.98
To 70 days labor of C. E. Mitchell dating from June 23d to Sept. 19, 1910 at \$4.00 per day.....	280.00	
His living expenses, common labor and material purchased by C. E. Mitchell during the above period	727.15	
		<hr/>
Total		1,007.15

(Testimony of J. M. Kroyer.)

Industrial Engineering Co.

To services rendered, paid on Feb.

7, 1911 500.00

To 19 days services of S. H. Head

at \$8.00 per day 152.00

To expenses incurred by our Mr.

S. H. Head while in San

Francisco 63.45

Ditto in Portland 242.00

 457.45

To 3 days services of J. M. Good-

win at 7.00 per day..... 21.00

Expenses incurred 7.30

 Total 28.30

Hottenworth & Maskell, Portland.

662.59

To pipe, pipe fittings and

labor

Total

Chas. F. Pedersen

For services rendered in

handling machinery into

Spalding Bldg. in July.. 60.00

To services ditto in Aug. sec-

ond engine 78.50

 Total 138.50

Safety Stove-Pipe & Steel Metal Co.

To making pan and tank July

20th 7.00

(Testimony of J. M. Kroyer.)

Putting flange on Pipe Aug.	
6th	8.00
Making pan and tank Aug.	
17th	7.00
<hr/>	
Total	22.00
Western Union Tel. Co. To mes-	
sages sent to Port.	13.12
Telegrams & Stenographers ser-	
vices.	21.80
Nicolai-Neppach Co.	4.65
Helzer Unden Machine Works, . . .	149.75
P. E. Eng. Co.50
B. C. Ball, services	50.00
Crown-Columbia Co.	15.25
Hagermann & Foard Co.	2.80
Muirhead & Murhard Co.	3.10
Preer Cutlery Co.90
Helser Bros.	60.00
Olsen Roe Co.	17.00
Willamette Iron Works	87.50

Our lost profit was \$4040.

Plaintiff moved to strike out the foregoing testimony upon the same grounds as stated in its objection. The motion was denied.

Exception No. 4. [129]

In the operation of gas engines with gasoline, a pint of gasoline would run an engine rated at 100 horse-power about 40 seconds. You could not get the test started in 40 seconds. 24 hours is considered a standard length of time when a test is to be

made. In order to remedy the shaft being cut out of true, it would be necessary to take it to a machine-shop, put it into a lathe on these centers on which it was turned and cut down the face of the coupling. That operation itself would take about an hour in the machine-shop, not including taking the machine out, or to the machine-shop and back, but simply the facing of the coupling. In many instances that occurs very often on line shafting and many other installations of machinery and can be remedied on the spot by shimming it with a thin piece of paper, about the thickness of a newspaper. It was claimed that this coupling was one four-thousandth out; a piece of newspaper on the side would have brought it true, and it could have been run in that way for quite a while, say a month or two, until it could have been permanently fixed. It would not necessarily have to be taken to the shop. This one four-thousandth of an inch is about the thickness of a hair. [130]

[Testimony of S. H. Head, for Defendant.]

S. H. HEAD, called as a witness on behalf of defendant, testified:

Previous to the conversation testified to by Mr. Wernicke, I met Mr. Spalding.

Q. What passed between you and him?

Plaintiff objected to the question upon the grounds that it was incompetent and immaterial and that plaintiff could not be bound by what passed between these men and that it took place after the transaction was completed.

The Court overruled the objections, to which rul-

(Testimony of S. H. Head.)

ing plaintiff noted an exception.

Exception No. 5.

(The witness answered:) A. Colonel Spalding asked me to get the elevators running; that was his one object, to get the elevators running; it required more electric power at the switchboard than we were giving. We had another engine there—it was set up. Colonel Spalding said, “Get another generator on to this one and that will give me enough power to run the elevators for the time being.”

I tried to get another generator, but I could not. The Westinghouse people did not have theirs there. Then Colonel Spalding suggested that I go to the General Electric; I went to the General Electric, but they did not have one, either a 75 or a 50. When we found that out the colonel said, “Well, it is impossible to get the power, and I must have it; the only thing for me to do is to contract with the electric company and have the juice brought in to me.” Then he said, “I will cancel your contract now and you must take your things out.”

That was preceding the conversation with Mr. Wernickie. I then told Mr. Wernickie about it, and I told him that the way they had held off the work there it had forced Colonel Spalding [131] to cancel the contract on us and that the machinery was there, and it belonged to them, and I wanted them to cancel their contract with us, but he would not do it.

Then I went and talked to Colonel Spalding and he sent me to his attorneys in Portland, and after I

(Testimony of S. H. Head.)

talked with them and explained the situation to them they wrote a letter to the Westinghouse people, which is the letter of September 6th. That entire transaction took place on the same date. The conversation with Mr. Wernickie was in the basement, and that with Mr. Spalding in his office upstairs in the same building. Colonel Spalding gave as a reason for abrogating the contract *was* that he had to get the elevators running; that it was very important, and time was absolutely of the essence of it. We did not have enough power in the first unit to run those elevators and he wanted me to get another generator to run in connection with it, and it was impossible to obtain that other generator, therefore Colonel Spalding canceled the contract and told me to take my machinery out and he would get power put into the building. That second generator was to be run by the second engine that was installed. We had two engines installed there, but we did not have the second generator.

I wrote to Wernickie that it was because of the insufficiency of the generator that we lost our contract with Colonel Spalding. I had to get 75 kilowatts; with the first unit, I could not get it; with the second I could; if I had a sufficiency of generators I could have gotten enough to keep those elevators running.

The second engine we installed was 100 horsepower; the same as the first.

My letter of August 4th contained also this statement: [132]

“This would make it appear that both you and we are going to be delayed somewhat in our work. Yet, as we have already shipped the second engine and presume that you people have shipped the second generator, the second unit should be installed very shortly, and we have no doubt Colonel Spalding will allow testing out of each plant as if completed, so that the expected payment will not be delayed much beyond the stated time.”

The subject matter to which the “give and take” in the letter of August 9th refers, was as follows: The generator came without a shaft or a bed-plate; I assumed, knowing nothing about the electrical end of it, which Mr. Wernicke was to furnish, that a shaft had to be put into the generator to run it, and you had to put a bed-plate underneath it; that is, the builders of the generator had to. Then it came up after we got to work, that we had to supply a very expensive gas regulator, which we had not figured on, and I pointed out the fact that we had bought the gas regulator for our work, because it belonged to us, and it was simply up to them to supply what belonged to their generators. That was the “give and take” that I referred to. In other words, we were to accommodate ourselves to the circumstances as we found them. [133]

The following letters were introduced in evidence as having been written by the Samson Iron Works and received by the Westinghouse Electric & Manufacturing Company:

Exhibit [Letter, August 12, 1910, Samson Iron Works to Westinghouse E. & Mfg. Co.].

Aug. 12, 1910.

Westinghouse Electric & Mfg. Co.,
#165 Second St.,
San Francisco, Cal
Spalding Bldg.

Gentlemen:—

Attention Mr. Irwin.

We have just received word from our engineer at Portland informing us that as near as he can get at it, you will not have either of your Generators in Portland before another 60 days has elapsed. Is it possible that such a thing as this can be? We would deem it a favor if your Financial Department could, under the circumstances, kindly go into the matter very fully and let us hear from you, for the probability is that we will be held by Col. Spalding under pretty heavy damages for non-fulfillment of our contract, supposing, of course, that this report from Portland is true.

Yours very truly.

SAMSON IRON WORKS.

By —————.

**Exhibit [Letter, August 15, 1910, A. M. Irwin to
Samson Iron Works].**

San Francisco, Cal. 8—15—10.

Samson Iron Works,

Stockton, Cal.

Gentlemen:—

Att. Mr. S. H. Head.

SUBJECT: SPALDING BLDG.

We have yours of Aug. 12th, with regard to shipments under contract in connection with your Spalding Bldg. job, and would state that we have no advice here to the effect that there will be a delay, nor have we any advice as to when shipment will be made.

We are, however, to-day taking the matter up with our Portland house with a view of assisting and promptly advising you.

We ask your indulgence for a short time.

Very truly yours,

A. M. IRWIN,

MK.

Ass't. to Treasurer.

**Exhibit [Letter, August 15, 1910, Samson Iron
Works to Westinghouse E. & Mfg. Co.].**

Aug. 15, 1910.

Westinghouse Electric & Mfg. Co.,

2d & Natoma Sts.,

San Francisco, Cal.

Attention Financial Dept.

Gentlemen:

We still await to hear from you a correct report on when [134] you will be able to ship the Gene-

rators to the Spalding Bldg., Portland.

We have just received a letter from our engineer in Portland saying that the first Generator is anything but a success at the present time and that your Company put a wooden bedplate underneath it, causing it to rock when in motion. We have wired our representatives, the Industrial Engineering Co. of Portland to send us a complete report of this plant and would request that you wire to your Mr. Wernicke and have him make you a definite statement about how your men are performing the work.

It would appear from our man's report that he is working against all kinds of inconveniences and annoyances in a petty way. This may possibly be attributed to the fact that Samson Iron Works together with every other manufacturer on this coast, San Francisco excepted, refuse to either recognize or treat with classes of men banded together in some secret organization to disrupt and hamper trade on this coast, calling themselves labor unions.

As this plant is of great importance not only to ourselves but to you in that it is the first attempt to use Gas Engines for elevator and electric lighting service on this Coast, we would be much obliged if you will give this matter your personal attention.

Yours very truly,

SAMSON IRON WORKS.

By ———.

**Exhibit [Letter, September 8, 1910, Westinghouse
E. & Mfg. Co. to Samson Iron Works].**

Portland, Oregon, 9—8—10.

Samson Iron Works,
Stockton,
California.

Gentlemen:—

Attention Mr. S. H. Head.

Subject: SPALDING BUILDING.

We desire to acknowledge receipt of your Mr. S. H. Head's communication dated September 6th, 1910, relative to generating outfit for the Spalding Building, and for your information would advise that this matter is being referred to the proper officials of this company.

Yours very truly,

WESTINGHOUSE ELECTRIC & MFG. CO.

GEO. R. SAILOR.

Stamped: Received

Sept. 10. 1910.

S.H.H. 10.

**Exhibit [Letter, September 10, 1910, Samson Iron
Works to Westinghouse E. & Mfg. Co.].**

Sept. 10, 1910.

Westinghouse Electric & Mfg. Co.,

Couch Bldg., Portland, Ore.

Gentlemen.

Subject: SPALDING BLDG.

We are in receipt of your favor of the 8th of Sept. acknowledging the official communication of our

Mr. Head on behalf of Samson Iron Works informing you that Col. Spalding had refused acceptance of the plant for this Building and that you had forwarded this letter to the proper officials of your Company, for which we thank you.

Yours very truly,

SAMSON IRON WORKS.

By ————— [135]

Exhibit [Letter, September 12, 1910, Samson Iron Works to Westinghouse E. & Mfg. Co.].

Sept. 12, 1910.

Westinghouse Electric & Mfg. Co.,

Couch Bldg., Portland, Ore.

Gentlemen:

As we have already informed you, Col. Spalding rejected the installation of the Electric Lighting Plant in the Spalding Building and we would say that your Generator, together with the appurtenances therefor, now in the basement of the Spalding Bldg., are awaiting your removal. We may needlessly add that we will have no further use for the Generators ordered from you at this time.

Thanking you, we are,

Yours very truly,

SAMSON IRON WORKS.

By —————.

[Testimony of W. M. Berry, for Plaintiff.]

W. M. BERRY, called as a witness on behalf of plaintiff in rebuttal testified:

The average value of the B.T.U. furnished by the Portland Gas & Coke Company to its consumers,

is 579 B.T.U's., between August 20, 1910, to September 12, 1910.

The foregoing constitutes all the parts of the evidence offered and received in said cause material for the consideration of the exceptions indicated, and assignments of error. [136]

[Instructions of the Court to the Jury.]

The Court instructed the jury as follows:

The COURT.—(Orally) Gentlemen, give me your attention now for a few moments:

This is an action by plaintiff to recover for the alleged breach of a contract between it and the defendant under which plaintiff was to furnish and defendant receive and pay for three electric generators, with their connections and attachments, as described in and in accordance with the terms of the contract which has been read and explained to you, to be installed in the Spaulding Building, at Portland, Oregon, on foundations in the basement of that building to be prepared for their reception.

The complaint proceeds upon the theory in substance that plaintiff was ready, able, and willing to furnish, deliver, and erect on its foundations and to have in operation on the date called for in the contract the first of said generators, but that by reason of the fact that the necessary foundation was not in readiness for such installation plaintiff was prevented from erecting the apparatus and having the same in operation by said date, but did erect the same as soon as the foundation was ready for its installation and defendant had furnished proper means for its operation; and that it was in all re-

spects ready and able to deliver the two other generators and the permanent switchboard called for by the contract in accordance with its terms, but that defendant not only failed to accept and pay for the first, but notified plaintiff that it would not receive the other apparatus nor proceed further under the contract, and that thereby defendant has been guilty of a breach of contract, to the plaintiff's damage in the sum of \$3,100, which amount it sues to recover. [137]

The theory of the defense is that the plaintiff failed to fulfill the contract on its part in that although the said building was in all respects in readiness for the installation of the first generator called for under the contract plaintiff failed and neglected to furnish the first of said generators with the necessary appliances and parts or to install the same of the capacity or within the time called for by the contract, and further failed to deliver the other generators and apparatus within the specified time, and that thereby the defendant lost and was compelled to abandon its contract with the owner of said building to install said electrical apparatus, to the damage of the defendant, which it alleges by way of counter claim, in the sum of \$7,693.34.

The contract in suit provides that the plaintiff is to furnish, deliver, and erect on foundations to be provided in the basement of the Spaulding Building, and to connect up and have in operation by July 1st, 1910, the first seventy-five kilowatt generator and a temporary switchboard. As the contract is to be constructed however, notwithstanding this pro-

vision as to time, plaintiff was not required to install said generator and switchboard and have it in operation until the foundations and other construction called for were in such state of completion in the building that plaintiff could proceed with the erection and installation of such apparatus. Upon such completion and readiness however it was the duty of plaintiff to proceed with all due despatch and make the installation of such apparatus. Moreover, the generator called for by the contract it appears was an engine-type generator, and it was contemplated by the contract that the generator, together with the gas engine, should constitute a unit of the installation. If, therefore, you find that according to proper practice and [138] engineering methods in the installation of such units the gas engine to be provided by defendant should have been erected on its foundation and installed with its necessary appliances before the generator could be properly installed and put in operation, upon which question evidence has been submitted to you, then plaintiff was not required to install said first generator before such time as it could be connected with the gas engine when installed by defendant, and thus put in operation.

If you find that plaintiff furnished the first generator and temporary switchboard at the time and of the capacity and quality called for by the contract, and as soon as the foundations and other construction required were in a condition of readiness, erected and installed them and put the same in operation, it did all it was required to do as to

that unit; and if you further find that within the time specified in the contract plaintiff was ready and able to deliver the two other generators and apparatus called for by the contract, including the permanent switchboard, but that before the time specified for such delivery defendant distinctly and absolutely refused to perform the contract, then plaintiff was at liberty to consider the contract as broken by defendant and at an end and to desist from further effort on its part to perform the same; and could then sue for damages as for a breach.

On the other hand, should you find that the foundation and other construction for the installation called for by the contract were in readiness in time to enable plaintiff to install with reasonable diligence and put in operation its generator within due time under the contract, but that the failure to have such installation completed and in operation within such time arose from plaintiff's failure or neglect to [139] deliver or erect the same complete, or was because of the defective or insufficient character of the machine, then defendant was entitled to reject it and repudiate the contract and the plaintiff cannot recover, but would itself be guilty of a breach of the contract.

In this connection it is claimed by the defendant that proper bed-plates upon which to install such generators as are here involved are an essential feature of the installation to be furnished by the builder of the generator apparatus; the plaintiff, on the other hand, claiming that proper construction and engineering methods as understood in that

business require such bed-plates to be furnished by the party installing the engine feature of the unit. The contract in this instance is silent upon this subject, but evidence has been introduced tending to show the custom prevailing in that respect. In this regard, if you find that it was the duty of plaintiff to furnish a proper bed-plate for the first generator, and that the failure to have that structure installed and in successful operation within the required time was in whole or in part by reason of plaintiff's neglect to furnish such bed-plate, then plaintiff was in default in the performance of its contract and defendant was justified in refusing to go on with it, and the plaintiff cannot recover.

Again, in connection with the defense, it is provided in the contract that delivery of the other two generators specified will be made from the factory in approximately ninety days from date of receipt of orders therefor. This word "approximately" means within a reasonable limit of a few days; that is, its effect is to give a reasonable extension of time for performance beyond the ninety days' limit, to be estimated and [140] determined under all the circumstances. The defendant claims that an order to deliver these generators was sent to the plaintiff on or prior to May 31st, 1910. If you find such to be the fact, those generators should have been delivered on or about August 31st following. There is evidence tending to show that on September 12th the defendant notified the plaintiff company that they would have no further use for those two generators, and that the one already delivered

awaited removal by the plaintiff. Up to that time there had been no delivery of the two generators referred to, and if you find that this delay was an unreasonable one, as not warranted by the time specified in the contract, then plaintiff was in default in that respect and the defendant was justified in refusing to receive that part of the apparatus.

On the question of damages, should you find for the plaintiff you will understand that under the contract between the parties there was no sale of any part of the machinery therein referred to actually consummated. By the express provisions of the contract no property in or title to the apparatus or any part thereof and no right to use the same under the patents of the plaintiff, passed to the defendant, but all of said apparatus remained the personal property of the plaintiff until fully paid for. The contract in that regard provides that if default be made by the purchaser in payments stipulated for at the time specified in the contract, the seller shall be entitled to the immediate possession of said apparatus and be free to enter upon the premises where the same is located and to remove it as its property. If, therefore, you find for the plaintiff, it will not be entitled to recover for the value of the apparatus installed by plaintiff [141] or any part thereof, since it remains its property, and there is no evidence that it has been lost or injured, but it will only be entitled to recover such damages as it has sustained in its endeavor to carry out the contract, such as the expense of the delivery and

installation thereof, and the necessary steps to have it returned to it, together with such profit as it would have realized on its sale had the contract been fully executed.

Further, in this connection, it is in evidence that the two generators that were not shipped were subsequently sold by plaintiff. As to those machines, therefore, if you find that they were sold for as much as plaintiff would have realized for them under the contract, the plaintiff can be allowed nothing for the failure of defendant to accept them.

It also appears that after the contract had been abandoned the plaintiff dismantled the switchboard called for by its terms and distributed its available parts back to its stock. Therefore should your verdict be for the plaintiff it will be entitled, as to this appliance, only to the difference between the value to the plaintiff of its parts and the value of the switchboard as a completed article, together with any profit over its cost which would have been realized had the contract been carried out. But you will bear in mind that the different pieces of machinery called for by the contract were not being sold piece-meal. The contract fixes a gross sum as the consideration to be paid for all the apparatus to be furnished by plaintiff thereunder, and therefore, should you find for plaintiff, it will be entitled to a verdict only for the difference between that gross sum and the value to it of the property left on its hands, to be arrived at in the way I have indicated, [142] to which should be added the expense it would have been to in installing the apparatus not

delivered had the contract been carried out, which expense the contract provides is to be borne by the plaintiff. In other words, as this gross price included the cost value of the goods sold, the cost of delivering and installing them and the profit plaintiff was to make on the contract, the difference between that gross price and the value of the property left on plaintiff's hands, plus the installation expense of the part not delivered represents plaintiff's loss in the transaction, if you find that it is entitled to recover.

Therefore, should your verdict be for the plaintiff, you will award it damages in such amount as will compensate it for the loss suffered by it within the limitations I have suggested, not exceeding, however, the amount demanded in the complaint.

As heretofore indicated, the defendant, in addition to its answer filed in this action, has set up a counter-claim asking damages for the breach of the contract on the part of the plaintiff in the amount I have heretofore stated, based upon its theory that the failure of the contract arose out of plaintiff's default in the particulars heretofore stated and has submitted evidence as to the loss suffered by it. Should you find, therefore, that the plaintiff failed to keep its contract and that the defendant has suffered damage thereby, you will award it such damages as you may find from the evidence it has suffered as the proximate result of plaintiff's breach, but not beyond a just compensation for its loss, nor in excess of the amount demanded.

Should you find in favor of the defendant but that it has not been damaged then your verdict should be

simply one in favor of defendant but without awarding it damages. [143]

Now, gentlemen of the jury, those are all the specific instructions with reference to the law of this case, but there are some general considerations that the Court should suggest to you.

The facts in the case are solely within the province of the jury to determine; the Court has nothing to do with the facts excepting to regulate the admission of evidence to establish them. It rests with you to say what the facts are from the evidence. You do that by considering the evidence, watching it as it goes in and giving it the benefit of the application of your judgment and wisdom as men of experience in business in determining what that evidence shows and from that you deduce the facts.

In this case much the larger portion of the evidence has been introduced by way of and in the shape of depositions. Depositions are presented in the form of written statements; and while you have not the advantage of the appearance upon the witness-stand of living witnesses, which is an element of exceeding value in determining the degree of credibility that will be accorded to the particular evidence, the law contemplates that evidence may be submitted by deposition. You must judge of it just as the Court would have to do, to the very best of your ability, applying to it your judgment and reason in saying how far the evidence of any particular witness thus submitted is reasonable in its nature, how far it comports with other evidence in the case which you are inclined to believe and thus you make

up your mind as to what the facts are.

Also there has been introduced a large volume of correspondence between the parties. That is evidence in the case for your consideration. The contract in this case provides that it cannot in any wise be varied as to its terms by anything [144] in the correspondence or transactions between the parties thereafter had; and of course you are not to consider any of this correspondence as bearing upon any change in the terms of the contract because the law does not admit of that, but you are permitted to consider it for any purpose as to which it tends to throw light on every question submitted to you as a question of fact and from which to determine the issue as to which one of these parties was guilty of culpability which resulted in the failure to carry out this contract.

And really that is the whole sum and substance of this case, one or the other of these two parties failed to come up to the requirements of their contract; as to which one the evidence is more or less conflicting, and that is the question which you are to determine. The party that failed to keep its contract, which failure resulted in loss to the other, is under the law to be mulct in damages. That is the whole sum and substance of this case, Who was responsible for the failure to have this contract carried out?

I should suggest to you that in the Federal Court the verdict of the jury must be unanimous; you cannot render a verdict by a less number than by the entire twelve, as you may under the state practice.

The clerk will have prepared forms of verdict which you will find to meet your necessities under the instructions I have given you.

When you have reached a verdict you may report it.

No other instructions were given.

Mr. LEVY.—We take an exception to the instruction concerning [145] the delay, and the matter of default; substantially instruction No. 4, containing the statement in regard to the letter of September 12th, and when the order was entered into for the generators, subject to being delivered. Also the instruction as to the question of the conditional sale, wherein your Honor read from the contract, and your Honor's conclusions therefrom. And the instruction as to the measure of damages concerning the failure of the defendant to receive the second and third generators, and the fact that they had a market value.

An exception to the failure to give the instruction requested in regard to the provision of the contract concerning conditional sale; and the instruction we asked in regard to damages wherein we made a computation in accordance with the manner in which we asked for it.

Exception No. 6. [146]

[Instructions Offered by Plaintiff and Refused.]

The following were the instructions offered by plaintiff which the Court refused to give to the jury:

“It is in evidence that this order was mailed from the Portland office after having been taken to Port-

land from San Francisco. It was signed by defendant's manager on May 26th; it was sent from Portland May 31 by mail. Therefore it could not have been received at the factory any earlier than June 4th.

"On August 3, 1910, plaintiff sent an invoice to defendant in the amount of \$1,500. Defendant did not pay the same, but wrote offering an excuse for its failure. Plaintiff wrote again to defendant on August 8th, 1910, requesting payment; still defendant did not comply. Another request was made on August 24th.

"On August 25, 1910, defendant wrote a letter to plaintiff, received presumably on the following day, in which defendant stated as follows: 'We beg to notify you that we have not and will not under any circumstances accept your generator nor any part of your machinery until you have conclusively proven to us that you have done the work specified in your contract with us which is that you are to supply a generator together with all necessary electrical equipment to deliver 75 Kw.'s in one instance and 100 Kw.'s in another instance to a switchboard when direct connected to our engine, and we further notify you that inasmuch as you have violated your contract with us, that same is void and of no effect.'

"On August 25, 1910, the first unit was operated and the required electrical power could not be developed. At a later test made of the gas engine of the defendant delivered only a maximum of 78.5 h. p.,

while there is evidence that to develop 75 Kw. in a generator such as required by this contract, a machine developing between 100 and 125 h. p. would be necessary. [147] Between the 25th of August and the 2d of September, 1910, the defendant was ordered by the owner of the Spaulding Building to take its apparatus out of the building.

“The contract contains a provision that all previous communications between the parties, either verbal or written, with reference to the subject matters of the contract are abrogated by the contract, and that the proposal, duly accepted and approved, constitutes the agreement between the parties. You are therefore instructed to disregard all such previous communications and assertions therein with reference thereto.

“If for the reasons I have outlined as the basis therefor, you shall conclude that the plaintiff is entitled to your verdict, the measure of damage is as follows:

“The contract price for the entire installation is \$7,850.00 From this you shall subtract the sum of the following items:

1. The market value at Portland, Oregon, in September, 1910, of the second and third generators, if you find that they had such market value;

2. If you find that the permanent switchboard had no market value as such, but only as comprising articles which when dismantled could be replaced in stock, the value of the component parts of the switchboard at said time;

3. The freight charge at said time upon the

switchboard from East Pittsburg, Pennsylvania, to Portland, Oregon, had it been shipped; and

4. The cost at that time of labor and material necessary to erect and install said second and third generators, permanent switchboard and other apparatus. [148]

“The balance is the amount of damages suffered by the plaintiff. Whether or not plaintiff received more than the cost of building the second and third generators at a sale to another party is utterly immaterial.

“If, therefore, as stated, your verdict shall be for the plaintiff and you shall find that the market value at Portland, Oregon, in September, 1910, of the second and third generators was \$2,827.10; that the permanent switchboard had no market value, but only a value as comprising articles which when dismantled could be replaced in stock and that the value of the component parts of the switchboard at that time was \$1,267.83; that the freight at said time upon said switchboard, had it been shipped from East Pittsburgh, Pennsylvania, to Portland, Oregon, would have been \$100.80; and that the cost at that time of labor and material necessary to erect said second and third generators and permanent switchboard was \$400.00; then the amount of your verdict for the plaintiff shall be \$3,254.27.

“The contract provides that the title to the property to be delivered and installed thereunder should remain in the plaintiff until all the payments provided for in the contract were made. But so far as this case is concerned, the insertion of this provi-

sion in the contract gave the defendant no more or greater rights than if it had been omitted and should, therefore, be wholly disregarded by you in rendering your verdict."

~~Attach to the foregoing bill of exceptions the original exhibits offered and received in evidence.~~ [149]

On November 20, 1914, within the time extended therefor by stipulations of counsel and orders of Court, plaintiff served upon defendant the proposed . . . ~~Attach to the foregoing bill of exeptions the origi-~~ bill of exceptions herein. Thereafter on April 12, 12, 1915, plaintiff's petition for a new trial herein was argued, submitted and denied. Thereafter on May 18, 1915, defendant, within the time extended by stipulations of counsel and orders of Court, served upon plaintiff its proposed amendments to said proposed bill of exceptions. Thereafter on May 21, 1915, said proposed bill of exceptions and proposed amendments thereto were delivered to the clerk of the said District Court. Thereafter the District Judge who tried said cause specified September 11, 1915, as the date upon which he would hear the matter of the settlement of the said bill of exceptions, and on said date said matter was continued until such time as said bill of exceptions should be engrossed.

[Order Settling Bill of Exceptions, and Stipulation Therefor.]

The foregoing Bill of Exceptions is hereby settled as above engrossed this 8th day of October, 1915.

WM. C. VAN FLEET,
District Judge.

The foregoing bill of exceptions, including pages 26bb through 26bbbbb, is correct, and may be settled as engrossed.

DAVID L. LEVY,
CAMPBELL, WEAVER, SHELTON &
LEVY,

Attorneys for Plaintiff.
NATHAN H. FRANK.
Attorneys for Defendant.

[Endorsed]: Filed Oct. 8, 1915. W. B. Maling,
Clerk. By J. A. Schaertzer, Deputy Clerk. [150]

*In the District Court of the United States in and
for the Northern District of California, Division
Two.*

No. 15,366.

WESTINGHOUSE ELECTRIC & MANUFACTURING COMPANY, a Corporation,
Plaintiff,

vs.

SAMSON IRON WORKS, a Corporation,
Defendant.

Praecipe [for Transcript of Record].

To the Clerk of the Above-entitled Court:

You are hereby requested to include in the record on writ of error in said cause the following papers:

1. Amended complaint.
2. Answer to amended complaint and counterclaim.
- 2a. Amendment to answer and counterclaim.
3. Cross-complaint.

4. Answer to cross-complaint.
5. Plaintiff's amended bill of items.
6. Plaintiff's amendment to amended bill of items.
7. Plaintiff's demand for a bill of particulars of the account mentioned in the cross-complaint.
8. Defendant's bill of particulars of said account.
9. Verdict.
10. Order continuing cause for term made June 18, 1914.
11. Petition for writ of error.
12. Assignment of errors.
13. Order allowing writ of error and supersedeas.
14. Bond on writ of error.
15. Citation on writ of error and affidavit of service. [151]
16. Writ of error.
17. Order made January 8, 1915, extending return day.
18. Order made January 23, 1915, extending return day.
19. Stipulation made January 28, 1915, extending return day.
20. Bill of exceptions.

DAVID L. LEVY,
CAMPBELL, WEAVER, SHELTON &
LEVY,

Attorneys for Plaintiff.

[Endorsed]: Filed Oct. 8, 1915. W. B. Maling,
Clerk. By J. A. Schaertzer, Deputy Clerk. [152]

**[Certificate of Clerk U. S. District Court to
Transcript of Record.]**

*In the District Court of the United States, in and
for the Northern District of California, Second
Division.*

No. 15,366.

WESTINGHOUSE ELECTRIC & MANUFACTURING COMPANY, a Corporation,
Plaintiff,

vs.

SAMSON IRON WORKS, a Corporation,
Defendant.

I, Walter B. Maling, Clerk of the District Court of the United States, in and for the Northern District of California, do hereby certify that the foregoing one hundred fifty-two (152) pages, numbered from 1 to 152, inclusive, to be a full, true and correct copy of the record and proceedings in the above-entitled cause, in conformity with the praecipe for record filed herein as the same remains of record and on file in the office of the clerk of said court, and that the same constitute the return to the annexed writ of error.

I further certify that the cost of the foregoing return to writ of error is \$106.40; that said amount was paid by David L. Levy, Esq., one of the attorneys for the plaintiff, and that the original writ of error and citation issued in said cause are hereto annexed.

IN TESTIMONY WHEREOF, I have hereunto

set my hand and affixed the seal of said District Court, this 4th day of November, A. D. 1915.

[Seal] WALTER B. MALING,
Clerk of the United States District Court, Northern
District of California.

[Ten Cent Internal Revenue Stamp Canceled
Nov. 4, 1915. W. B. M.] [153]

[Writ of Error (Original).]

UNITED STATES OF AMERICA,—ss.

The President of the United States of America, to
the Honorable, the Judges of the District Court
of the United States for the Northern District
of California, Greeting:

Because, in the record and proceedings, as also in
the rendition of the judgment of a plea which is in
the said District Court, before you, or some of you,
between Westinghouse Electric & Manufacturing
Company, a corporation, Plaintiff in Error, and
Samson Iron Works, a Corporation, Defendant in
Error, a manifest error hath happened, to the great
damage of the said Westinghouse Electric & Manu-
facturing Company, a Corporation, Plaintiff in
Error, as by its complaint appears:

We, being willing that error, if any hath been,
should be duly corrected, and full and speedy jus-
tice done to the parties aforesaid in this behalf, do
command you, if judgment be therein given, that
then, under your seal, distinctly and openly, you
send the record and proceedings aforesaid, with all
things concerning the same, to the United States

Circuit Court of Appeals for the Ninth Circuit, together with this writ, so that you have the same at the city of San Francisco, in the State of California, within thirty days from the date hereof, in the said Circuit Court of Appeals, to be then and there held, that, the record and proceedings aforesaid being inspected, the said Circuit Court of Appeals may cause further to be done therein to correct that error, what of right, and according to the laws and customs of the United States, should be done.

Witness, the Honorable EDWARD D. WHITE,
Chief Justice of the United States, the 9th day of
December, in the year of our Lord one thousand
nine hundred and fourteen.

[Seal] WALTER B. MALING,
Clerk of the United States District Court for the
Northern District of California.

By J. A. Schaertzer,
Deputy Clerk.

Allowed by WM. C. VAN FLEET,
U. S. Dist. Judge. [154]

The answer of the Judges of the District Court of the United States, in and for the Northern District of California. The record and all proceedings of the plaint whereof mention is within made, with all things touching the same, we certify under the seal of our said Court, to the United States Circuit Court of Appeals for the Ninth Circuit, within mentioned at the day and place within contained, in a certain schedule to this writ annexed as within we are commanded.

[Seal] WALTER B. MALING,
Clerk.

[Endorsed]: No. 15,366. United States District Court for the Northern District of California, Division Two. Westinghouse Electric & Manufacturing Company, a Corporation, Plaintiff in Error, vs. Samson Iron Works, a corporation, Defendant in Error. Writ of Error. Filed Dec. 15, 1914. W. B. Maling, Clerk. By J. A. Schaertzer, Deputy Clerk.

[Citation on Writ of Error (Original)].

UNITED STATES of AMERICA,—ss:

The President of the United States, to Samson Iron Works, a corporation, Nathan H. Frank, and Irving H. Frank, Greeting:

You are hereby cited and admonished to be and appear at a United States Circuit Court of Appeals for the Ninth Circuit, to be holden at the city of San Francisco, in the State of California, within thirty days from the date hereof, pursuant to a writ of error duly issued and now on file in the clerk's office of the United States District Court for the Northern District of California wherein Westinghouse Electric & Manufacturing Company, a Corporation, is plaintiff in error, and Samson Iron Works, a Corporation, is defendant in error, to show cause, if any there be, why the judgment rendered against the said plaintiff in error, as in the said writ of error mentioned, should not be corrected, and why speedy justice should not be done to the parties in that behalf.

WITNESS, the Honorable WILLIAM C. VAN FLEET, United States District Judge for the Nor-

thern District of California this 9th day of December, A. D. 1914.

WM. C. VAN FLEET,

United States District Judge. [155]

Service of the within citation is hereby admitted for defendant, Samson Iron Works, a corporation, and its attorneys on this 10th day of December, 1914.

United States of America,

City and County of San Francisco,—ss:

On this 15th day of December, in the year of our Lord one thousand nine hundred and fourteen, personally appeared before me, Eugene W. Levy, Notary Public, the subscriber, R. W. Kearney appears and makes oath that he delivered a true copy of the within citation and also of the petitions for writ of error, assignment of errors, order allowing writ of error, bond thereon, and writ of error herein to Nathan H. Frank, attorney for Samson Iron Works.

R. W. KEARNEY.

Subscribed and sworn to before me at San Francisco, this 15th day of December, A. D. 1914.

E. W. LEVY,

Notary Public in and for the City and County of San Francisco, State of California.

[Endorsed]: No. 15,366. United States District Court for the Northern District of California. Westinghouse E. & M. Co., Plaintiff in Error, vs. Samson Iron Works, Defendant in Error. Citation on Writ of Error. Filed Dec. 15, 1914. W. B. Mal-
ing, Clerk. By J. A. Schaertzer, Deputy Clerk.

[Endorsed]: No. 2674. United States Circuit Court of Appeals for the Ninth Circuit. Westinghouse Electric & Manufacturing Company a Corporation, Plaintiff in Error, vs. Samson Iron Works, a Corporation, Defendant in Error. Transcript of Record. Upon Writ of Error to the United States District Court of the Northern District of California, Second Division.

Filed November 4, 1915.

F. D. MONCKTON,
Clerk of the United States Circuit Court of Appeals
for the Ninth Circuit.

By Meredith Sawyer,
Deputy Clerk.

*United States Circuit of Appeals for the Ninth
Circuit.*

WESTINGHOUSE ELECTRIC & MANUFACTURING COMPANY, a Corporation,
Plaintiff in Error,
vs.

SAMSON IRON WORKS, a Corporation,
Defendant in Error.

**Order Extending Time to [January 26, 1915, to] File
Record on Writ of Error and to Docket the
Cause.**

Good cause appearing therefor, it is Ordered that the plaintiff in error may have to and including the 26th day of January, A. D. 1915, within which to file the record on writ of error and to docket the cause

in the United States Circuit Court of Appeals for the Ninth Circuit.

Dated January 7, 1915.

WM. C. VAN FLEET,
United States District Judge. [156]

No. ——. United States Circuit Court of Appeals for the Ninth Circuit. Order Under Rule 16 Enlarging Time to — to File Record Thereof and to Docket Case. Filed Jan. 7, 1915. F. D. Monckton, Clerk.

In the District Court of the United States in and for the Northern District of California, Division Two.

No. 15,366.

WESTINGHOUSE ELECTRIC & MANUFACTURING COMPANY, a Corporation,
Plaintiff,

vs.

SAMSON IRON WORKS, a Corporation,
Defendant.

Order [Allowing Plaintiff to February 7, 1915, to Make Return on Citation on Writ of Error].

Good cause appearing therefor, it is hereby ORDERED: that plaintiff may have to and including the 7th day of February, 1915, within which to make return on the citation on writ of error heretofore issued in the above-entitled matter.

Dated this 8th day of January, 1915.

WM. C. VAN FLEET,
Judge.

[Endorsed]: No. 15,366. In the District Court of the United States in and for the Northern District of California. Westinghouse Electric & Manufacturing Company, a Corporation, Plaintiff, vs. Samson Iron Works, a Corporation, Defendant. Order. Filed Jan. 8, 1915. F. D. Monckton, Clerk.

*United States Circuit Court of Appeals for the
Ninth Circuit.*

WESTINGHOUSE ELECTRIC & MANUFACTURING COMPANY, a Corporation,
Plaintiff in Error,
vs.

SAMSON IRON WORKS, a Corporation,
Defendant in Error.

**Order Extending Time to [November 4, 1915, to]
File Record on Writ of Error, Etc.**

It appearing from the representations of the clerk of the District Court of the United States for the Northern District of California that he was unable to prepare the record on writ of error within the time allowed by the stipulation and order filed September 7, 1915, it is ordered that the plaintiff in error may have to and including November 4, 1915, within which to file its record on writ of error and to docket the cause in the United States Circuit Court of Appeals for the Ninth Circuit.

WM. C. VAN FLEET,
District Judge.

Dated October 27, 1915.

[Endorsed]: No. ——. United States Circuit Court of Appeals for the Ninth Circuit. Order Under Rule 16 Enlarging Time to Nov. 4, 1915, to File Record Thereof and to Docket Case. Filed Oct. 27, 1915. F. D. Monckton, Clerk.

No. 2674. United States Circuit Court of Appeals for the Ninth Circuit. Three Orders Under Rule 16 Enlarging Time to November 4, 1915, to File Record Thereof and to Docket Case. Refiled Nov. 4, 1915. F. D. Monckton, Clerk.

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